



LAND SOUTH OF EAST MIDLANDS AIRPORT

UPDATED ES ADDENDUM

VOLUME II, CHAPTER 16: SUMMARY OF MITIGATION & RESIDUAL EFFECTS (ADDENDUM)

OCTOBER 2025 MAY 2026

16 Summary of Mitigation & Residual Effects

16.1 Introduction

This chapter of the ES Update Addendum summarises the additional mitigation and enhancement measures identified in the technical assessment chapters of ES Update Volume II (Chapters ~~7-14~~ 7 and 9-14), and ES Update Volume III (LVIA) and ES Addendum Volume II Chapter 8: Transport and Access; and provides a summary of the residual environmental effects predicted to arise as a result of the proposed development, including those identified as significant.

It is noted that due to the outline nature of the application and the flexibility pursued through the parameters for which planning consent is being sought, the EIA has adopted a worst case approach to the assessment of the proposed development. Therefore, it is likely that, at the reserved matters application stage, in some instances, the significant adverse effects would be moderated down based on the final detailed designs and updated mitigation proposals.

16.2 Mitigation Measures Summary

As set out in the Update Addendum to Chapter 2: EIA Process and Methodology, the aim of an EIA is to develop measures to avoid, offset or reduce the significant adverse environmental effects of a project and to enhance any beneficial effects. Within each of the technical assessments, the need for additional mitigation measures has been considered in respect of likely significant adverse effects as far as reasonably possible. In addition, opportunities for environmental enhancement have been explored where practicable. The proposed additional mitigation and enhancement measures are in addition to the embedded design and operational mitigation measures (as described in ES Update Chapter 5: Proposed Development) and standard construction mitigation measures (as described in ES Update Chapter 6: Construction Strategy), which have been considered within the technical assessments.

Table 16.2.1 presents the collated additional mitigation measures identified through the EIA process as being required, along with the proposed means of securing these measures. This does not therefore include the embedded mitigation measures identified in each of the Technical Chapter Updates (Volume II Chapters ~~7-14~~ 7-14 and Volume III LVIA) and Volume II Chapter 8 Transport and Access Addendum.

Reference should be made to the individual technical assessment chapters for more detail.

16 Summary of Mitigation & Residual Effects

Table 16.2.1
Additional Mitigation and Enhancement Measures Summary

Technical Area	Stage	Possible Effect Being Mitigated	Mitigation and Enhancement Measure	How Secured/Trigger
Socio-economics	Construction	Enhancement of construction stage employment effect	The contractor would be required to work with local education and training centres, and industry bodies, to provide apprenticeships and training opportunities, particularly for those in the NEET category (not in employment, education, or training).	Phased Planning Condition/S106 agreement Prior to the commencement of the relevant phase or sub phase of development
Transport	Construction	Additional construction HGV and workforce traffic and resulting traffic-related effects on Severance, Driver Delay, Non-Motorised User Amenity, Road Safety and Fear and Intimidation	Implementation of a Construction Traffic Management Plan (CTMP) and Construction Environmental Management Plan (CEMP) to reduce the effects of HGVs and workforce vehicles throughout construction. As part of this, traffic management measures specifically designed to protect vulnerable road users will be implemented. Adverse effects of construction will be temporary and closely managed and monitored throughout the construction period.	Phased Planning Condition Prior to the commencement of the relevant phase or sub phase of development CTMP and CEMP to be implemented during construction
	Completed Development	Additional operational HGV and workforce traffic and resulting traffic-related effects on Severance, Driver Delay, Non-Motorised User Amenity, Road Safety and Fear and Intimidation	Implementation of Travel Plan(s) to reduce car vehicle trip generation and promote sustainable mode share. Refer to the Framework Travel Plan which accompanies this planning application.	Phased Planning Condition Prior to the occupation of the relevant phase or sub phase of development Travel Plan to be implemented as agreed during operation
Air Quality	Construction	Effect on nearby receptors as a result of construction dust	Implementation of a Dust Management Plan (DMP) to reduce adverse effects from on-site dust sources on nearby receptors. The DMP will be secured through the CEMP and will include best practice mitigation measures in line with the IAQM Construction dust guidance. Refer to ES Chapter 6: Construction Strategy and ES Chapter 9: Air Quality for further information.	Phased Planning Condition (CEMP) Prior to the commencement of the relevant phase or sub phase of development CEMP to be implemented during construction
Noise & Vibration	Construction	Noise effects on the following nearby noise sensitive receptors from construction activities: R1 – Hyam’s Lane, Diseworth Village	Whilst the assessment of construction noise suggest a minor adverse impact, this is based on an assessment of major plant items. To ensure construction noise impact is controlled, Best Practicable Means, as defined in Section 72 of the Control of Pollution Act 1974, would be adopted and the following mitigation measures (as outlined within ES Chapter 6: Construction Strategy) would be implemented through the CEMP: <ul style="list-style-type: none"> – Any compressors brought on to the site to be silenced or sound reduced models fitted with acoustic enclosures; – All pneumatic tools to be fitted with silencers or mufflers; – Care to be taken when erecting or striking scaffolds to avoid impact noise from banging steel. All operatives undertaking such activities to be instructed on the importance of handling the scaffolds to reduce noise to a minimum; 	Phased Planning Condition (CEMP) Prior to the commencement of the relevant phase or sub phase of development

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Possible Effect Being Mitigated	Mitigation and Enhancement Measure	How Secured/Trigger
		R2 – The Birches, Grimes Gate R3 – Leonardo Hotel R4 – Premier Inn R5 – Holiday Inn R6 – Radisson Blu Hotel R7 – Travelodge R8 – Clements Gate, Diseworth Village	<ul style="list-style-type: none"> - The majority of deliveries to be programmed to arrive during normal working hours only. Care to be taken when unloading vehicles to minimise noise. Delivery vehicles to be routed so as to minimise disturbance to local residents. Delivery vehicles to be prohibited from waiting within or in the vicinity of the site with their engines running; - All plant items to be properly maintained and operated according to manufacturers’ recommendations in such a manner as to avoid causing excessive noise; - All plant to be sited so that the noise impact at nearby noise sensitive properties is minimised; and - Local hoarding, screens or barriers to be erected as necessary to shield particularly noisy activities. <p>Works should only take place during normal construction hours, unless otherwise agreed in writing with the local authority, which are as follows:</p> <ul style="list-style-type: none"> - 08:00 – 18:00 hours on weekdays; - 08:00 – 13:00 hours on Saturdays; and - No working on Sundays, Bank or Public Holidays. <p>The only exception to the above would be the workforce arriving at site, and deliveries, that would have the potential to occur between 07:00 and 18:00</p>	CEMP to be implemented during construction
	Completed Development	Noise effects on the following nearby noise receptors from on-site operational activities: R2 - The Birches, Grimes Gate R8 - Clements Gate, Diseworth Village R3 - Leonardo Hotel R4 - Premier Inn R5 - Holiday Inn	<p>A noise management plan will reduce the likelihood of adverse impacts as result of noise from activities in the service yard that are identified following a noise impact assessment to accompany subsequent reserved matters submissions.</p> <p>The exact mitigation measures will depend on the orientation, location and proposed use of the service yard and will therefore need to be reviewed at reserved matters stage.</p> <p>Effective screening will be required to control noise from operation activity within the service yards. This is in addition to the screening along the western boundary of the site included within the embedded mitigation. The exact form of screening will depend on the orientation and location of the services yards. Localised screening in the form of bunds/barriers could be implemented around service yards, or screening can be provided by positioning the units between the service yards and the receptors. This will need to be developed during detailed design and will therefore need to be reviewed at reserved matters stage.</p>	<p>Phased Planning Condition</p> <p>Prior to the occupation of the relevant phase or sub phase of development.</p> <p>To be implemented during the operation of the relevant phase or sub phase of development</p> <p>Phased Planning Condition / Reserved Matters</p> <p>Prior to the first occupation of the relevant phase or sub of development</p>
Ecology	Construction	Habitat loss and fragmentation. Resulting effect on species	Proposed landscape buffers (specified on parameter plans) incorporating retained trees, hedgerows and ponds (including the Historic Local Wildlife Site (LWS)), would also accommodate additional tree planting and surface water attenuation features (though sensitively designed with respect to the adjacent EMA aerodrome safeguarding requirements). The landscape strategy would be determined at the reserved matters stage but will include the provision of native tree and hedgerow planting and other habitat creation to reduce habitat net loss and minimise effects from habitat fragmentation and isolation during the construction stage. Further details can be found in the Update to ES Chapter 11: Ecology, Section 11.6 Embedded Mitigation.	Reserved Matters/ Planning condition
	Construction	Direct impacts/ damage to retained habitats. Resulting effects on species from the above impacts, including habitat damage and disturbance.	Implementation of a Tree Protection Plan in accordance with British Standard 5837:2012 Trees in relation to design and construction. A suitably experienced arboricultural clerk of works (ACoW) would be appointed to oversee the effective delivery of arboricultural protection measures, with a site presence as required (e.g., supervision of tree removal and tree protection fencing). The Tree Protection Plan would be implemented in accordance with the CEMP, to be secured by a suitably worded planning condition.	<p>Planning condition</p> <p>Prior to the commencement of development</p>

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Possible Effect Being Mitigated	Mitigation and Enhancement Measure	How Secured/Trigger
	Construction	Indirect impacts to non-statutory designated sites, and retained habitats. Damage and pollution to retained ponds. Resulting effect on species from the above impacts, including habitat damage and disturbance.	An appropriate CEMP would be devised, in accordance with British Standard 42020:2013 Biodiversity: Code of Practice for Planning and Development, to ensure the risk of indirect effects of pollution during construction is avoided. Measures to be included within the CEMP to minimise any potential pollution events from construction machinery, runoff, lighting and dust deposition would include; <ul style="list-style-type: none"> - An appropriate buffer zone around the Local Wildlife Site (LWS), retained ponds and watercourse; - Best practice measures to reduce noise, dust and vibrations (refer to ES Chapter 6: Construction Strategy); and - Measures to reduce incidence of contamination (e.g., spill kits, safe storage of fuel and/or other chemicals, no refueling near to ponds or watercourses, silt fencing). 	Phased Planning condition (CEMP) Prior to the commencement of the relevant phase or sub phase of development CEMP to be implemented during construction
	Construction	Loss, damage and disturbance of habitats (aquatic and terrestrial) Killing/injury of species Habitat fragmentation and/or isolation. Detriment to favorable conservation status of great crested newts (GCN).	NWLDC is registered with the Natural England (NE) District Level Licensing (DLL) scheme for Great Crested Newts (GCN), which provides an alternative option to undertaking detailed surveys, providing onsite mitigation measures and applying for a site-specific mitigation licence (which could affect the quantum of development that the site could support). As the site falls within an Amber and Green GCN Risk Zone, an application has been submitted to Natural England for the development to be delivered under the District Level Licensing (DLL) Scheme for GCN in Leicestershire. An Impact Assessment and Conservation Payment Certificate (IACPC) has been received and the first stage payment completed. This will provide all necessary mitigation and compensation for GCN.	Planning condition/ legal compliance Prior to the commencement of development
	Construction	Killing/injury of protected species	A precautionary method of works (PMoW) would be implemented, which would require the following measures to be undertaken: <ul style="list-style-type: none"> - The Ecological Clerk of Works (ECoW) would deliver a 'Toolbox talk' to all contractors. - Suitable vegetation would be cut with a mower to a height of no less than 50mm to avoid the killing of amphibians, reptiles and other animals. Arisings would be left in-situ for 24 hours before being removed from site to allow any animals to move before vegetation is collected up. This would involve raking up using hand tools, rather than machinery where possible, and then removing vegetation from the site; - After the vegetation is cut, the ECoW would check the appropriate works area to ensure that no amphibians, reptiles or other animals are present in the areas affected by construction activities. The short grass would be checked for any potential amphibian or reptile refuges, such as log piles, and the ECoW will carry out a fingertip search prior to any refuge being dismantled by hand by the contractor; - Any piles of rubble, logs, or brash would be dismantled by hand and removed from site or placed into suitable areas of habitat away from areas of development; - Any amphibians, reptiles or hedgehog found, would be moved by hand to suitable terrestrial habitat nearby; - Phased and directional clearance would be considered, to encourage species to move away from the works area and avoiding the risk of isolation; - Additional precautions during the construction phase would be considered to further reduce the risk of any breach of legislation (e.g., involving storing all materials which could provide cover for GCN, other amphibians or reptiles, such as rubble or bricks on raised pallets, and covering any excavations overnight or providing escape ramps). <p>These precautionary working methods will be detailed in a CEMP, to be secured via a suitably worded planning condition.</p>	Phased Planning condition (CEMP) Prior to the commencement of the relevant phase or sub phase of development CEMP to be implemented during construction
	Construction	Disturbance of species	A PMoW would be implemented, which includes a sensitively designed lighting strategy, including the following measures: <ul style="list-style-type: none"> - Construction work would to be undertaken during daylight hours where practicable, when bats and other wildlife are least active, to minimise disturbance to their foraging and commuting activities; - Artificial lighting would be minimised as far as is reasonably practical both spatially and temporally (i.e., including motion-sensitive timers); - If necessary, overnight lighting should be kept to a minimum and directed away from retained trees and hedgerows where possible, and directed towards work areas only; - Dark corridors would be maintained along the application site boundaries; - Warm-white LED luminaires would be used as far as is reasonably practical, to avoid the wavelength component which causes the greatest disturbance to bats; - Lighting would be capped at the horizontal to ensure no upward light spill; 	Phased Planning condition (CEMP) Prior to the commencement of the relevant phase or sub phase of development CEMP to be implemented during construction

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Possible Effect Being Mitigated	Mitigation and Enhancement Measure	How Secured/Trigger
			<ul style="list-style-type: none"> - Trees and hedgerows to be retained would have an appropriately marked buffer from construction and development (preferably in line with BS5837 standards as advised by an arborist); and - Noise and vibration should be kept to a minimum when working in the vicinity of trees which have been identified as having potential to support roosting bats. <p>These precautionary working methods will be detailed in a CEMP.</p>	
	Construction	Habitat loss, damage and disturbance (roosts). Killing/injury of species Detriment to favourable conservation status.	<p>Any trees with moderate or high potential (or Potential Roost Feature (PRF)-M equivalent classification in accordance with most recent guidelines) to support roosting bats (providing that they have been fully surveyed, the survey data is considered valid, and the survey results suggest that a roost is likely absent), should be subject to an aerial inspection by a bat licenced ecologist (if health and safety permits) immediately prior to felling or remedial works being undertaken. If after the pre-felling aerial inspection, PRFs appear clear of bats (and nesting birds) then the tree can be felled.</p> <p>If through further/update survey work or aerial inspections a roost is found, then a licence from NE would need to be obtained, once planning permission is granted. The licence would contain a mitigation strategy for roosting bats detailing the required mitigation, compensation and enhancements in respect to all anticipated impacts to roosting bats. The licence would also include long-term management and monitoring requirements to ensure that the mitigation provided remains suitable for roosting bats in the long term. The mitigation would likely include:</p> <ul style="list-style-type: none"> - pre-felling/remedial works inspections/surveys and supervision of works by a licenced bat ecologist; - sensitive working methods and timing of works to reduce potential impacts; and - provision of alternative roosts, suitable for the species found roosting on site (e.g. bat boxes). <p>Whilst the exact mitigation (if required) is not known, NE would only grant a licence if the mitigation proposals would be sufficient to maintain the favorable conservation status of the species concerned. A licence application, in order to be granted, would include details of how the proposed mitigation development would meet the 'three tests', including an assessment of how the mitigation proposed would maintain favorable conservation status - the details of which, are not therefore, considered in this ES Chapter.</p> <p>Trees with low potential to support roosting bats (PRF-I equivalent classification in accordance with most recent guidelines) would be soft felled under the supervision of licenced bat ecologists.</p> <p>To minimise net loss of roosting opportunities, general purpose bat boxes (Schwegler 1FF or similar specification) would be installed on retained trees in suitable areas along boundary hedgerows. If appropriate, bat boxes would also be incorporated into the structure of the new buildings – on aspects of the buildings facing the dark landscape buffers (Ibstock Type C inbuilt bat brick box or similar design). The precise location and number of bat boxes to be installed would be specified and monitored through the provision of a Landscape Ecological Management Plan (LEMP) of Habitat Management and Monitoring Plan (HMMP).</p>	<p>Reserved Matters/ Panning condition/ legal compliance</p> <p>Prior to the relevant phase or sub phase of development</p>
	Construction	Killing/injury/disturbance of species	<p>To avoid triggering the legislation protecting nesting birds, clearance of suitable habitat should be timed outside the nesting bird season (generally taken as March to September inclusive, though this is not defined in law and birds may nest outside of this time). If any clearance works to nesting habitats are required during the nesting season, then pre-removal checks for nesting birds must be carried out by a suitably experienced ECoW, no more than 48 hours prior to the works commencing. If any nesting birds are found to be present, appropriate buffer zones would be implemented, within which works are excluded for the duration of the breeding attempt. Any active nests would be left in situ until a suitably experienced ecologist confirms that the chicks have fledged, and the nest is no longer active. Some species of bird (i.e. pigeons/doves) are known to nest all year-round (i.e. outside of the 'core' nesting season), so due diligence must be shown by contractors when felling trees even outside of the core nesting season. If an active nest is suspected, works would stop, and the advice of an ecologist sought.</p> <p>These precautionary working methods will be detailed in a CEMP.</p>	<p>Reserved Matters/ Planning condition</p> <p>Phased Planning condition (CEMP)</p> <p>Prior to the commencement of the relevant phase or sub phase of development</p> <p>CEMP to be implemented during construction</p>

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Possible Effect Being Mitigated	Mitigation and Enhancement Measure	How Secured/Trigger
	Construction	Loss of nesting habitat for breeding birds	<p>Breeding Bird surveys indicate that the application site supports up to 8 skylark breeding territories. Therefore, to compensate for the loss of skylark nesting habitat on the application site, it is proposed that at least 8 skylark plots be introduced on nearby arable land. The location of the mitigation site is to be confirmed and will be secured through a S106 agreement.</p> <p>Plot creation and maintenance should adhere to the following principles:</p> <ul style="list-style-type: none"> - Plots would be located in an arable crop field of an area of 5ha or more, with an open aspect. - Plots would comprise an area of 16m² where crop seed is not sown, as a minimum. - Plots would be located at least 50m from any hedgerows or boundaries and located away from tramlines. - Plots would be spaced at a density of 2x plots per hectare. <p>The above principles for creating off-site plots for skylark would be secured via the S106 agreement and will be outlined in more detail within a Farmland Bird Management Strategy which would confirm the management of the site for the benefit of skylark for at least 10 years.</p>	<p>S106 agreement (off-site)</p> <p>Prior to the commencement of development</p>
	Completed development	Habitat loss/degradation Resulting effects on species	A LEMP/Habitat Management and Monitoring Plan (HMMP) would ensure the long-term management of retained and newly created habitats and enhancements within the application site, as well as measures for specific species groups (e.g. provision of bat boxes and hibernacula). As per the Parameters Plan, the development would include the provision of roads, footpaths and cycle routes to minimise/control vehicle and pedestrian access into the habitats within the landscape buffers during the operational phase. Where appropriate, signage and/ or barrier fencing would be used to protect the more sensitive habitats and to protect visitors to the development (e.g fencing around the Historic LWS, ponds and any newly created rainwater attenuation in the form of dry swales (sensitively designed with respect to the adjacent aerodrome safeguarding requirements)).	<p>Reserved Matters/ Planning condition/ S106 agreement</p> <p>Prior to the first occupation of the development</p>
	Completed development	Disturbance of species	A sensitively designed Lighting Strategy, to be appropriately conditioned, will be developed at the reserved matters stage. This will demonstrate how retained corridors which are of known benefit to foraging and commuting bats (namely, the western and southern boundary trees and hedgerows) and newly created suitable bat foraging habitats within the landscape buffers will be, where practical, maintained as dark corridors at night. This should assist with their continued suitability for bats during the operational Phase of the development. Where reasonably practicable light levels at these locations will strive to not exceed the current baseline Lux levels by more than an additional 1 lux.	<p>Reserved Matters/ Phased Planning condition</p> <p>Prior to the erection of lighting in the relevant phase or sub phase of development</p>
	Completed development	Habitat fragmentation (commuting)	<p>The landscape strategy will be agreed at the reserved matters stage. However, the strategy will include for the provision of sufficient alternative bat flight lines/commuting routes around the application site boundaries to mitigate impacts from habitat loss and fragmentation during the construction stage.</p> <p>Landscape planting will be designed to provide additional shelter and foraging resource, using native species that are known to attract invertebrate prey items.</p>	<p>Reserved Matters/ Planning condition</p> <p>Details to be agreed prior to the commencement of the relevant phase of development and implemented as agreed</p>
	Completed development	Killing/injury	Measures would be implemented at the detailed design stage to reduce bird strike risk with respect to the adjacent EMA aerodrome safeguarding requirements. These would be implemented in accordance with the Bird Hazard Management Plan (BHMP; Update to ES Volume IV Appendix 11.7), which would be updated at the reserved matters stage, once the detailed designs are available.	Reserved Matters / Planning condition
Water Resources & Flood Risk	Construction	Potential water quality impacts to Diseworth Brook and groundwater receptors (Secondary B Bedrock Aquifer and Secondary (undifferentiated) Superficial Aquifer)	<p>The use of the following best practice techniques would be implemented through the CEMP throughout the construction stage to mitigate potential impacts on the Diseworth Brook and it's tributaries and the aquifers underlying the application site:</p> <ul style="list-style-type: none"> - Correct storage of chemicals, fuels and oils (e.g. use of secondary containment such as bunds and drip trays as appropriate); - Designated refueling areas for vehicles and equipment, which would be located away from the watercourse to minimise the risk of spills entering the environment; - Implementation of an appropriate accident response plan; - Provision of, and training for the use of, booms and spill kits; - Appropriately managed concrete washout; 	<p>Phased Planning Condition (CEMP)</p> <p>Prior to the commencement of the relevant phase or sub phase of development</p>

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Possible Effect Being Mitigated	Mitigation and Enhancement Measure	How Secured/Trigger
			<ul style="list-style-type: none"> - Construction activities should, where possible, account for seasonality i.e., high risk activities to take place during 'drier' months of the year to minimize the impact of run-off; and - Restriction of soil and ground disturbance to 'zone(s)' where construction is taking place. <p>It is likely that fine materials could remain suspended in surface water runoff from construction areas. Therefore, the use of sedimentation ponds and other measures are likely to be required and would be included within the final CEMP to be agreed with the Local Authority prior to commencement.</p>	CEMP to be implemented during construction
	Construction	Potential water quality impacts to Diseworth Brook	All works, but specifically those adjacent to the tributary of Diseworth Brook, would be completed in a way which prevents the pollution of surface water. This includes working in accordance with best practice identified in the CIRIA guidance on the control of water pollution from construction sites and Guidance for Pollution Prevention 5: Works and maintenance in or near water (GPP5). While it is noted that GPPs do not provide current government guidance for England, they do present environmental good practice guidance for the whole of the UK.	<p>Phased Planning Condition (CEMP)</p> <p>Prior to the commencement of the relevant phase or sub phase of development</p> <p>CEMP to be implemented during construction</p>
Built Heritage & Archaeology	Construction	Direct impacts on non-designated archaeological deposits through complete removal or removal of a major part of archaeological site and loss of research potential/significance	<p>Consultation with the Leicestershire County Council Senior Planning Archaeologist would be required in order to agree a scope of archaeological work to be undertaken prior to the construction of the proposed development, which would preserve archaeological deposits by record. This is assumed to be secured by means of an appropriately worded planning condition.</p> <p>Whilst the resulting research would contribute to the increased knowledge and understanding of the Iron Age and Roman landscape within the application site, this offsets, rather than alters, the overall effects on archaeological deposits as they would still be removed.</p>	<p>Planning Condition</p> <p>Prior to the commencement of the relevant phase of development</p>
Climate Change	Construction	Reduce GHG emissions from the proposed development during 'the Before Use Stage' (A1-A5)	<p>The CEMP, or equivalent, would be developed by the Principal Contractor prior to the commencement of work on-site and as part of this the Principal Contractor would consider opportunities to reduce GHG emissions associated within the following key areas:</p> <ul style="list-style-type: none"> - Emissions to air; - Waste generation; - Use of natural resources; - Use of raw materials; - Energy use; and - Fuel consumption. 	<p>Phased Planning condition (CEMP)</p> <p>Prior to the commencement of the relevant phase or sub phase of development</p> <p>CEMP to be implemented during construction</p>
	Construction	Reduce GHG emissions from the proposed development during the Before Use Stage (Lifecycle Stage A)	<p>To minimize the embodied carbon impact of the proposed development, the following measures are proposed which will be considered at the reserved matters stage:</p> <ul style="list-style-type: none"> - Where concrete is required, an alternative binder, otherwise known as cement replacements would be considered where appropriate to replace portions of cement content. These are typically by-products of other carbon intensive process. One such common example is Ground Granulated Blast Furnace Slag (GGBS) which is a by-product of the iron manufacturing process and therefore has a much lower carbon factor (kgCO₂e/kg material) than other cement. - Structural steel with a lower embodied carbon impact would be considered as an alternative to materials with a higher embodied carbon impact where appropriate. <p>The degree to which these measures can be incorporated into the design will be assessed within a Life Cycle Assessment undertaken at reserved matters stage when the design is sufficiently developed to afford material quantification.</p>	Reserved Matters for relevant phase of development

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Possible Effect Being Mitigated	Mitigation and Enhancement Measure	How Secured/Trigger
	Completed Development	Reduce GHG emissions from the proposed development during the Use Stage (Lifecycle Stage B)	<p>To minimise GHG emissions during the operational stage, the following measures are proposed:</p> <ul style="list-style-type: none"> - The proposed development will seek to achieve BREEAM 'Outstanding'; - Each building roof will be designed and constructed to allow for photovoltaics/solar thermal arrays to be fitted by building users subject to aerodrome safeguarding requirements; - Electric Vehicle Charging Points will be provided in accordance with Building Regulation Part S (June 2022). This will be developed as part of the detailed design of the proposed development and confirmed the reserved matters stage when the layout including the number of buildings will be fixed; - The Travel Plan will promote the use of sustainable and active travel modes and a new bus stop facility/bus interchange will be provided within the proposed development; - Each building will be both heated and cooled by air source heat pumps which are classified as Low NOx Low Carbon technologies; - Buildings will be constructed to exceed the requirements of latest Part L Building Regulations - 'Conservation of Fuel and Power'; - Buildings will include a number of BREEAM efficiency measures including LED lighting incorporating presence and daylight compensation control, water saving devices and equipment, Building Management System controls ready etc; and - Water low flow control devices and leak detection will be implemented to reduce wastage. <p>The degree to which these measures can be incorporated into the design will be assessed within an Energy and Sustainability Statement undertaken at reserved matters stage when the design is sufficiently developed.</p>	Reserved Matters for relevant phase of development
Landscape and Visual	Construction	Potential damage to the health and vitality of trees and woodland that is to be retained.	Implementation of a Tree Protection Plan in accordance with British Standard 5837:2012 Trees in relation to design and construction. A suitably experienced arboricultural clerk of works (ACoW) would be appointed to oversee the effective delivery of arboricultural protection measures, with a site presence as required (e.g., supervision of tree removal and tree protection fencing). The Tree Protection Plan would be implemented in accordance with the CEMP, to be secured by a suitably worded planning condition.	<p>Phased Planning condition (CEMP)</p> <p>Prior to the commencement of the relevant phase or sub phase of development</p> <p>CEMP to be implemented during construction</p>
	Construction	Poor quality soils being used in soft landscape areas	A soil resource study should be carried out prior to any topsoil strip on site to determine which topsoil is the best for retention in soft landscaped areas. The study should also set out how topsoil is to be stripped and stored to prevent contamination with subsoil / rubble etc. The soil resource study should also be used to inform the bund design to ensure that anaerobic conditions are not created and that soil placement is carried out in a way that avoids compaction issues.	<p>Planning condition</p> <p>Prior to the commencement of the relevant phase of development</p>
	Construction	Poor quality soft landscape	Provide full detailed soft landscape scheme with full NBS specification including for subsoil / topsoil requirements and any standard details such as tree pits etc.	<p>Planning condition/reserved matters detail</p> <p>Prior to the commencement of the relevant phase of development</p> <p>To be implemented as agreed</p>

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Possible Effect Being Mitigated	Mitigation and Enhancement Measure	How Secured/Trigger
	Completed Development	Poorly maintained soft landscaping and failure to provide net gain provision on site	Provide a 30-year LEMP for each phase of the development to ensure successful establishment and ongoing maintenance / management to achieve assumed growth rates.	Phased Planning condition / S106 agreement Prior to the commencement of each phase of development

16 Summary of Mitigation & Residual Effects

16.3 Residual Effects Summary

This section summarises the likely residual environmental effects of the proposed development following the adoption and inclusion of the additional mitigation measures that are set out in Table 16.2.1.

All residual effects of the proposed development are summarised in **Table 16.3.1**.

The likely significant residual effects of the proposed development are set out in the section below and are also shown in bold text in **Table 16.3.1**.

As noted in Section 16.1, due to the outline nature of the application and the flexibility pursued through the parameters for which planning consent is being sought, the EIA has adopted a worst case approach to the assessment of the proposed development. Therefore, it is likely that, at the Reserved Matters Application stage, in some instances, the significant adverse effects would be moderated down based on the final detailed designs and updated mitigation proposals.

16.3.1 Likely Significant Effects

Construction Stage

Following implementation of mitigation measures, the proposed development would produce the following likely significant environmental effect during the construction phase:

- Effects on local economic activity during construction stage – **Moderate Beneficial**;
- Effects on regional labour force from generation of construction employment – **Moderate Beneficial**;
- Effects on regional economic activity from generation of gross value add (GVA) – **Moderate Beneficial**;
- Pedestrian delay effect on people walking and cycling on Footpath L45 due to temporary closure during construction – **Major Adverse**;
- Effects on local non-designated archaeological deposits during construction stage - Minor (not significant) - **Moderate Adverse**; and
- Landscape and visual effects would range from Negligible to those identified for the completed development stage, including the significant effects summarised below.

Completed Development Stage

Following implementation of mitigation measures, the proposed development would produce the following likely significant environmental effects during the completed development stage:

- Effects on local labour force from generation of operational employment – **Moderate Beneficial**;
- Effects on local economic activity from generation of gross GVA – **Major-Moderate Beneficial**;
- Effects on regional labour force from generation of operational employment – **Major-Moderate Beneficial**;
- Effects on regional economic activity from generation of gross GVA – **Major-Moderate Beneficial**;
- ~~- Driver delay for vehicle drivers and passengers on the A453 / Melbourne Road (2032) – **Moderate Beneficial**~~
- ~~- Driver delay for vehicles drivers and passengers on M1 Motorway Junction 25 (Sandiacre Junction) (at 2032) – **Moderate Adverse**.~~
- Landscape effects on the fabric of the site – **Major Adverse**.
- Landscape effects on the Langley Lowlands Character Area – **Moderate Adverse** upon completion of the proposed development, reducing to Moderate / Minor (not significant) after 15 years.
- Landscape effects of landscape setting of Diseworth Conservation Area – **Moderate Adverse** upon completion of the proposed development, reducing to Moderate / Minor (not significant) after 15 years.
- Visual effects on receptors from Viewpoint 2, 20 & 21 (Hyam’s Lane (Public Right of Way (PRoW) L45/1)) – **Major Adverse** upon completion of the proposed development, reducing to **Moderate/Major Adverse** after 15 years.
- Visual effects on receptors from Viewpoint 1 (A453) and Viewpoint 4 and 20 (PRoW to the north-east of Diseworth) – Major/Moderate Adverse upon completion of the proposed development, reducing to **Moderate Adverse** after 15 years.
- Visual effects on receptors from Viewpoint 3 (Grimes Gate and PRoW to the west (L43/1)), Viewpoints 8 & 9 & 18 (Area to the south of Diseworth), Viewpoints 5, 7, 9, 10 and 18 (Cross Britain Way), and Viewpoint 3 (National Cycle Route 15) – **Moderate Adverse** upon completion of the proposed development and after 15 years, although this is not considered significant for viewpoint 3 (National cycle route 15) and 4, 5, 7, 9, 10 & 18 (Cross Britain Way recreational route) after 15 years.

Table 16.3.1
Summary of Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
Socio-economics	Construction	Local Labour Force (Medium)	Generation of Construction Employment – Employment Skills Training Plan	Minor – Moderate (Not Significant)	BEN	ST	D & IND	T	IRR
	Construction	Local Economic Activity (Medium)	Generation of Local Economic Activity	Moderate (Significant)	BEN	ST	D	T	IRR

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Construction	Regional Labour Force (Medium)	Generation of Construction Employment – Employment Skills Training Plan	Moderate (Significant)	BEN	ST	D & IND	T	IRR
	Construction	Regional Economic Activity (Medium)	Generation of Gross GVA	Moderate (Significant)	BEN	ST	D	T	IRR
	Construction	Existing Agricultural Land (Low)	Loss of Existing Agricultural Land	Minor (Not Significant)	ADV	LT	D	P	IRR
	Construction	Existing Agricultural Business (High)	Loss of Existing Agricultural Business	Minor -Moderate (Not Significant)	ADV	LT	D	P	IRR
	Completed Development	Local Labour Force (Medium)	Generation of Operational Employment	Moderate (Significant)	BEN	LT	D & IND	P	IRR
	Completed Development	Local Economic Activity (Medium)	Generation of Gross GVA	Major – Moderate (Significant)	BEN	LT	D	P	IRR
	Completed Development	Regional Labour Force (Medium)	Generation of Operational Employment	Major – Moderate (Significant)	BEN	LT	D & IND	P	IRR
	Completed Development	Regional Economic Activity (Medium)	Generation of Gross GVA	Major – Moderate (Significant)	BEN	LT	D	P	IRR
Transport	Construction	People walking and cycling on Footpath L45 (Low)	Pedestrian delay effect to users of the PRoW through the site connecting Diseworth village to the A453 (near Finger Farm Roundabout) as a result of there being no alternate route during the temporary closure of the section which intersects the north-eastern corner of the application site	Major (Significant)	ADV	ST	D	T	R
	Completed Development 2027	People walking and cycling on the A453 (between Airport access and proposed site access) (Negligible)	Severance effect from changes to existing infrastructure provision	Negligible (Not Significant)	ADV	LT	D	P	IRR
			Non-motorised user amenity effect from changes to existing infrastructure provision	Negligible (Not Significant)	ADV	LT	D	P	IRR
			Fear and intimidation effect from changes to existing infrastructure provision	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	People walking and cycling on the A453 (between proposed site access and Beverley Road) (Negligible)	Severance effect from changes to existing infrastructure provision	Negligible (Not Significant)	ADV	LT	D	P	IRR
			Non-motorised user amenity effect due to changes in traffic and changes to existing infrastructure provision	Negligible (Not Significant)	ADV	LT	D	P	IRR
			Fear and intimidation effect due to changes in traffic and changes to existing infrastructure provision	Minor (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	People walking and cycling on the A453 (between Beverley Road and Finger Farm Roundabout) (Negligible)	Severance effect from operational traffic and changes to existing infrastructure provision	Negligible (Not Significant)	ADV	LT	D	P	IRR
			Pedestrian delay effect from changes to existing infrastructure provision	Minor (Not Significant)	ADV	LT	D	P	IRR

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
				Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible					
			Non-motorised user amenity effect from changes to existing infrastructure provision	Minor (Not Significant)	ADV	LT	D	P	IRR
			Fear and intimidation effect from changes to existing infrastructure provision	Minor (Not Significant)	ADV	LT	D	P	IRR
Completed Development 2027		People walking and cycling on the A453 (between Finger Farm Roundabout and A6 Kegworth Bypass) (Negligible)	Severance effect from changes to existing provision	Minor (Not significant)	BEN	LT	D	P	IRR
			Non-motorised user amenity effect changes to existing infrastructure	Negligible (Not significant)	ADV	LT	D	P	IRR
			Fear and intimidation effect due to changes in traffic and changes to existing provision	Minor (Not significant)	ADV	LT	D	P	IRR
Completed Development 2027		People walking and cycling on Beverley Road (between A453 and Herald Way) (Low)	Severance effect from changes to existing provision	Negligible (Not significant)	BEN	LT	D	P	IRR
			Non-motorised user amenity effect from changes to existing provision	Minor (Not significant)	BEN	LT	D	P	IRR
			Fear and intimidation effect from changes to existing provision	Minor (Not significant)	BEN	LT	D	P	IRR
Completed Development 2027		Vehicle drivers and passengers on the Finger Farm Roundabout - A453 / A42 and M1 on and off-slips / Donington Services	Driver delay effect from operational traffic.	Minor (not significant)	ADV	LT	D	P	IRR
Completed Development 2027		Vehicle drivers and passengers on the A453 / Beverley Road / Site Access	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
Completed Development 2027		Vehicle drivers and passengers on the A453 / Airport Access Road	Driver delay effect from operational traffic.	Minor (not significant)	ADV	LT	D	P	IRR
Completed Development 2027		Vehicle drivers and passengers on the A453 / A6 Kegworth Bypass / Wilders Way	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
Completed Development 2027		Vehicle drivers and passengers on the M1 Junction 24 - Kegworth Interchange	Driver delay effect from operational traffic.	Minor (not significant)	ADV	LT	D	P	IRR
Completed Development 2027		Vehicle drivers and passengers on the A453 / new site access junction	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Completed Development 2027	Vehicle drivers and passengers on the M1 Junction J23A	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the M1 Junction J24A	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A453 / Grimes Gate (Low)	Driver delay effect from operational traffic.	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A453 / The Green Unnamed Road (Low sensitivity for driver delay, high sensitivity for road safety)	Driver delay effect from operational traffic.	Negligible (Not significant)	ADV	LT	D	P	IRR
			Road safety effect from operational traffic	Minor (not significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A453 / EMA Jet Park 2 (Low)	Driver delay effect from operational traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A453 / Donnington Park Access Road (Low)	Driver delay effect from operational traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A453 / Melbourne Road (Low)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A453 / Moor Lane (Low)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A42 J14 (eastbound off-slip) / A453 (Low)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A42 J14 (westbound on-slip) / A453 / Gelscoe Lane / Top Brand (Low)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Completed Development 2027	Vehicle drivers and passengers on Grimes Gate / Lady Gate / Hall Gate (Low)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on The Green / Unnamed Road (Low)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on The Green / Lady Gate / Long Mere Lane (Low)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the A50 Junction 1 - Sawley Junction (Medium)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the Castle Donington Relief Road roundabout (Low)	Driver delay effect due to changes in traffic	Negligible (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	Vehicle drivers and passengers on the M1 Junction 25 - Sandiacre Junction (Medium)	Driver delay effect due to changes in traffic	Minor (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2027	People walking and cycling on Footpath L45 (Low)	Pedestrian delay effect as a result of the realignment of the PRow through the north-eastern part of the proposed development site and diversion to the propose puffin crossing across the A543	Minor (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2032	People walking and cycling on the A453 (between Airport main access and proposed site access) (Negligible)	Severance effect from changes to existing infrastructure provision	Negligible (Not Significant)	BEN	LT	D	P	IRR
Non-motorised user amenity effect from changes to existing infrastructure provision			Negligible (Not Significant)	BEN	LT	D	P	IRR	
Fear and intimidation effect from changes to existing infrastructure provision			Negligible (Not Significant)	BEN	LT	D	P	IRR	
	Completed Development 2032	People walking and cycling on the A453 (between proposed site access and Beverley Road) (Negligible)	Severance effect from changes to existing infrastructure provision	Negligible (Not Significant)	ADV	LT	D	P	IRR
Non-motorised user amenity effect due to changes in traffic and changes to existing infrastructure provision			Negligible (Not Significant)	ADV	LT	D	P	IRR	
Fear and intimidation effect due to changes in traffic and changes to existing infrastructure provision			Minor (Not Significant)	ADV	LT	D	P	IRR	

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Completed Development 2032	People walking and cycling on the A453 (between Beverley Road and Finger Farm Roundabout) (Negligible)	Severance effect from changes to existing infrastructure provision	Negligible (Not Significant)	ADV	LT	D	P	IRR
			Pedestrian delay effect from changes to existing infrastructure provision	Minor (not significant)	ADV	LT	D	P	IRR
			Non-motorised user amenity effect due to changes in traffic and changes to existing infrastructure provision	Minor (Not Significant)	ADV	LT	D	P	IRR
			Fear and intimidation effect from changes to existing infrastructure provision	Minor (Not Significant)	ADV	LT	D	P	IRR
	Completed Development 2032	People walking and cycling on the A453 (between Finger Farm roundabout and A6 Kegworth Bypass) (Negligible)	Severance effect from changes to existing provision	Minor (Not significant)	BEN	LT	D	P	IRR
			Non-motorised user amenity effect from changes to existing provision	Negligible (not significant)	BEN	LT	D	P	IRR
			Fear and intimidation effect due to changes in traffic and changes to existing infrastructure provision	Minor (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	People walking and cycling on Beverley Road (between A453 and Herald Way) (Low)	Severance effect from changes to existing infrastructure provision	Negligible (Not significant)	BEN	LT	D	P	IRR
			Non-motorised user amenity effect from changes to existing provision	Minor (Not significant)	BEN	LT	D	P	IRR
			Fear and intimidation effect from changes to existing infrastructure provision	Minor (Not significant)	BEN	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the Finger Farm Roundabout - A453 / A42 and M1 on and off-slips / Donington Services	Driver delay effect from operational traffic.	Minor (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / Beverley Road / Site Access	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / Airport Access Road	Driver delay effect from operational traffic.	Minor (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / A6 Kegworth Bypass / Wilders Way	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Completed Development 2032	Vehicle drivers and passengers on the M1 Junction 24 - Kegworth Interchange	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / new site access junction	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the M1 Junction J23A	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the M1 Junction J24A	Driver delay effect from operational traffic.	Negligible (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / Grimes Gate (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / The Green Unnamed Road (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / EMA Jet Park 2 (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / Donnington Park Access Road (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / Melbourne Road (Medium/Low)	Driver delay effect due to changes in traffic	Moderate (Significant) Negligible (Not Significant)	BEN	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A453 / Moor Lane (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A42 J14 (eastbound off-slip) / A453 (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Completed Development 2032	Vehicle drivers and passengers on the A42 J14 (westbound on-slip) / A453 / Gelscoe Lane / Top Brand (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on Grimes Gate / Lady Gate / Hall Gate (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on The Green / Unnamed Road (Low)	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on The Green / Lady Gate / Long Mere Lane	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the A50 Junction 1 - Sawley Junction (Medium)	Driver delay effect due to changes in traffic	Minor (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the Castle Donington Relief Road roundabout	Driver delay effect due to changes in traffic	Negligible (Not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	Vehicle drivers and passengers on the M1 Junction 25 - Sandiacre Junction (Medium)	Driver delay effect due to changes in traffic. In the future baseline, the junction is forecast to operate above theoretical capacity in both the AM and PM peak hours, likely associated with background traffic growth and committed developments. With the proposed development, queue lengths are forecast to increase further. While the proposed development contributes a small increase to demand at the junction, the underlying capacity constraints are a result of existing and background growth pressures on the network, which are expected to lead to performance issues even in the absence of the proposed development.	Moderate (significant) Minor (not significant)	ADV	LT	D	P	IRR
	Completed Development 2032	People walking and cycling on Footpath L45 (Low)	Pedestrian delay effect as a result of the realignment of the PRow through the north-eastern part of the proposed development site and diversion to the proposed puffin crossing across the A453.	Minor (Not Significant)	ADV	LT	D	P	IRR
Air Quality	Construction	Nearby receptors (Low)	Following the implementation of dust suppression measures set out within the DMP, which will be included within the CEMP, the residual effect on nearby receptors as a result of construction dust would be a reduced albeit still present low risk of dust soiling or track-out effects. The impact of vehicles using the designated construction vehicle routes is predicted to have a negligible impact on local air quality. Furthermore, construction traffic impacts will be mitigated through the implementation of a CTMP.	Negligible (Not Significant)	ADV	ST	D	T	R

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Completed Development	Nearby receptors (High at locations where residential properties are close to the road).	The air quality impact of road traffic emissions attributable to the proposed development is predicted to be negligible or imperceptible at all receptor locations assessed. This is also the outcome of the assessment when considered in context with a maximum road traffic emissions scenario which includes the cumulative impact of other planned developments.	Negligible (Not Significant)	ADV	LT	D	T	R
Noise and Vibration	Construction	R1-R8 (High/Medium)	Following the implementation of mitigation measures for the best practicable means of controlling noise from construction works, the residual effect on the nearest noise sensitive receptors as a result of construction noise would be reduced albeit still present.	Negligible To Minor (Not Significant)	ADV	ST	D	T	N/A
	Completed Development	R1 – Hyams Lane, Diseworth Village (High)	Noise impacts from operational activities would be very small and would fall below the representative background sound level during the day and exceeds the representative background sound level by 0.7 dB during the night.	Negligible (Not Significant)	ADV	LT	D	P	R
	Completed Development	R3 – Leonardo Hotel (Medium)	The exact nature of the mitigation will be determined at the reserved matters stage, as it is intrinsically linked to the final site design. Notwithstanding this, it is expected that reasonable mitigation measures will reduce the scale of effect such that it could be reduced to negligible or minor, which would not be considered a significant impact on the receptors. Such measures might include a noise management plan and screening through acoustic fences and/or the orientation of the buildings. Consideration can also be given to the context of the assessment at the hotels where the use of openable windows is unlikely.	Negligible / Minor (Not Significant)	ADV	LT	D	P	R
	Completed Development	R6 – Radisson Blu Hotel (Medium)	Noise impacts would be below the representative background sound level during both day and the night.	Negligible (not significant)	ADV	LT	D	P	R
	Completed Development	R2 – The Birches, Grimes Gate (High/Medium)	The exact nature of the mitigation will be determined at the reserved matters stage, as it is intrinsically linked to the final site design. Notwithstanding this, it is expected that reasonable mitigation measures will reduce the scale of effect such that it could be reduced to negligible or minor, which would not be considered a significant impact on the receptors. Such measures might include a noise management plan and screening through acoustic fences and/or the orientation of the buildings.	Negligible / Minor (Not Significant)	ADV	LT	D	P	R
	Completed Development	R4 – Premier Inn (Medium)	The exact nature of the mitigation will be determined at the reserved matters stage, as it is intrinsically linked to the final site design. Notwithstanding this, it is expected that reasonable mitigation measures will reduce the scale of effect such that it could be reduced to negligible or minor, which would not be considered a significant impact on the receptors. Such measures might include a noise management plan and screening through acoustic fences and/or the orientation of the buildings. Consideration can also be given to the context of the assessment at the hotels where the use of openable windows is unlikely.	Negligible / Minor (Not Significant)	ADV	LT	D	P	R
	Completed Development	R5 – Holiday Inn (Medium)	The exact nature of the mitigation will be determined at the reserved matters stage, as it is intrinsically linked to the final site design. Notwithstanding this, it is expected that reasonable mitigation measures will reduce the scale of effect such that it could be reduced to negligible or minor, which would not be considered a significant impact on the receptors. Such measures might include a noise management plan and screening through acoustic fences and/or the orientation of the buildings. Consideration can also be given to the context of the assessment at the hotels where the use of openable windows is unlikely.	Negligible / Minor (Not Significant)	ADV	LT	D	P	R

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Completed Development	R7 – Travelodge (Medium)	Noise impacts would be below the representative background sound level during both day and the night.	Negligible (Not Significant)	ADV	LT	D	P	R
	Completed Development	R8 – Clements Gate, Diseworth Village (High)	The exact nature of the mitigation will be determined at the reserved matters stage, as it is intrinsically linked to the final site design. Notwithstanding this, it is expected that reasonable mitigation measures will reduce the scale of effect such that it could be reduced to negligible or minor, which would not be considered a significant impact on the receptors. Such measures might include a noise management plan and screening through acoustic fences and/or the orientation of the buildings.	Negligible /Minor (Not Significant)	ADV	LT	D	P	R
Ecology	Construction	Non-statutory designated site – Pond Historic LWS	Impacts on Pond- Historic LWS from habitat damage and potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Donington Park Services hedgerow ash trees, M1 J23A Candidate LWS	Impacts on Donington Park Services hedgerow ash trees, M1 J23A Candidate LWS from potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Donnington Park Services grassland and scrub, M1 J23A Candidate LWS	Impacts on Donnington Park Services grassland and scrub, M1 J23A Candidate LWS from potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	The Paddock – semi-improved grassland Historic LWS	Impacts on The Paddock – semi-improved grassland Historic LWS from potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Diseworth Brook Candidate LWS	Impacts on Diseworth Brook Candidate LWS from potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Long Whatton Brook Historic LWS	Impacts on Long Whatton Brook Historic LWS from potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Broadleaved woodland (offsite)	Impacts on broadleaved woodland from habitat damage and potential pollution and contamination, with the implementation of additional mitigation.	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Veteran Trees Medium/ County	Impacts on veteran trees from potential pollution and contamination, with the implementation of additional mitigation.	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Mature trees and treelines	Impacts on native mature trees and treelines from habitat loss, habitat damage and potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP). Whilst habitat creation and management will be detailed at the reserved matters stage and set out within a LEMP/HMMP, it is assumed, given the requirement for landscape screening that it would be possible to mitigate for tree loss on site. In addition, an update Biodiversity Net Gain Assessment has been provided as a stand-alone document (15950/R12b) and does not form part of the ES Update, however, this sets out the requirements for offsite mitigation, if required, with respect to habitat units and bespoke compensation required with respect to the loss of BNG regulation Veteran trees (Note: these do not classify as NPPF veteran trees).	Minor (Not Significant)	ADV	LT	D	P	R

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Construction	Hedgerows	Impacts on native hedgerows from habitat loss, habitat damage and potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP). Whilst habitat creation and management will be detailed at the reserved matters stage and set out within a LEMP/HMMP, this will need to ensure that hedgerows are appropriately mitigated for. In addition, an update Biodiversity Net Gain Assessment has been provided as a stand-alone document (15950/R12b) and does not form part of the ES Update, however, this sets out that the requirements for offsite mitigation, with respect to hedgerow units could be achieved if necessary.	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Standing water (ponds)	Impacts on standing water from habitat loss, habitat damage and potential pollution and contamination. Whilst habitat creation and management will be detailed at the reserved matters stage and set out within a LEMP/HMMP, it is assumed any newly created rainwater attenuation/SUDs in the form of dry swales (sensitively designed with respect to the adjacent aerodrome safeguarding requirements) would not mitigate for the loss of standing water on site. However, an update Biodiversity Net Gain Assessment has been provided as a stand-alone document (15950/12b) and whilst it does not form part of the ES Update, it sets out the requirements for habitat units to satisfy the trading rules of the metric. Ultimately, the loss of standing water on-site (Pond P1) will require replacement with the same broad habitat type (i.e. pond) in an off-site location, as part of any wider need for off-site mitigation, depending on the extent of the scheme which is ultimately delivered and soft landscape detail.	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Watercourse	Impacts to the retained watercourse from habitat damage and potential pollution and contamination, with the implementation of additional mitigation (Measures set out within a CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Amphibians (including GCN)	Impacts on GCN and other common amphibian species from habitat loss and maintenance of Favourable Conservation Status, killing/injury/disturbance, habitat damage and potential pollution and contamination, with the implementation of additional mitigation (NE DLL & measures as set out in CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Bats	Impacts on bats from habitat loss, fragmentation, and maintenance of favourable conservation status. Impacts on roosting bats from killing/injury/disturbance. Impacts on roosting bats from habitat damage (trees). Disturbance from construction noise and vibration. Disturbance impacts on roosting, foraging and commuting bats from construction lighting. With the implementation of mitigation (Measures set out within a CEMP, habitat creation and management as set out within a LEMP/HMMP, NE licence (if required), provision of bat boxes).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Breeding Birds	Impacts on breeding birds from habitat loss; killing/injury/disturbance of breeding birds; potential indirect impacts from disturbance, with the implementation of additional mitigation (Measures set out within a CEMP, habitat creation and management as set out within a LEMP/HMMP and provision of offsite skylark pots.)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Brown hare	Killing/injury and disturbance impacts from construction lighting, with the implementation of additional mitigation (Measures set out within a CEMP)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Construction	Hedgehog	Killing/injury and disturbance impacts from construction lighting, with the implementation of additional mitigation (Measures set out within a CEMP)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Invertebrates	Impacts from habitat loss, habitat damage and potential pollution and contamination, with the implementation of additional mitigation (measures set out within a CEMP).	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Pond- Historic LWS	Loss or degradation to Historic LWS, with the implementation of additional mitigation (Habitat creation and management as set out within a LEMP/HMMP)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Broadleaved Woodland (offsite)	Degradation to offsite broadleaved woodland. Offsite - no mitigation measures.	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Veteran trees	Loss or degradation to veteran trees, with the implementation of additional mitigation (Habitat creation and management as set out within a LEMP/HMMP)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Mature trees & treelines	Loss or degradation to mature trees and treelines, with the implementation of additional mitigation (Habitat creation and management as set out within a LEMP/HMMP)	Minor (Not Significant)	BEN	LT	D	P	R
	Completed Development	Native hedgerows	Loss or degradation to hedgerows, with the implementation of additional mitigation (Habitat creation and management as set out within a LEMP/HMMP)	Minor (Not Significant)	ADV	LT	D	P	R
	Completed Development	Standing water (ponds)	Loss or degradation to onsite ponds, with the implementation of additional mitigation (Habitat creation and management as set out within a LEMP/HMMP)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Amphibians (including GCN)	Impacts on GCN and other amphibians from habitat loss or degradation, with the implementation of mitigation (NE DLL & habitat creation and management as set out within a LEMP/HMMP)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Bats (Local)	Impacts on bats from habitat loss, fragmentation and maintenance of favourable conservation status, with the implementation of mitigation (habitat creation and management as set out within a LEMP/HMMP). Disturbance impacts to bats from operational lighting, with the implementation of mitigation (Sensitively designed Lighting Strategy).	Minor (Not Significant)	ADV	N/A	N/A	N/A	N/A
	Completed Development	Breeding birds	Impacts on breeding birds from habitat loss; with the implementation of additional mitigation (Habitat creation and management as set out within a LEMP/HMMP and provision of offsite skylark pots)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Brown hare	Disturbance impacts to brown hare from operational lighting, with the implementation of mitigation.	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Invertebrates	Impacts to reptiles from habitat loss or degradation, with the implementation of mitigation (habitat creation and management as set out within a LEMP/HMMP)	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Completed Development	Hedgehog (Local)	Disturbance impacts to hedgehog from operational lighting, with the implementation of mitigation.	Negligible (Not Significant)	N/A	N/A	N/A	N/A	N/A
	Construction	Surface Water Features – Hydrological Status - Medium	Best practice construction methods, implemented through a CEMP and compliance with the conditions of necessary permits, would reduce the potential for changes to the hydrological	Minor (Not Significant)	ADV	ST	IND	T	IRR

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect						
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR	
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible										
Water Resources & Flood Risk			status of downstream watercourses as a result of either increased flow rates or silt-laden waters entering the Diseworth Brook through run-off into its tributaries. As such, the magnitude of impact from the proposed development is considered to be “small”.							
	Construction	Surface Water Quality – Low	Best practice construction methods, implemented through a CEMP and compliance with the conditions of necessary permits, would reduce the risk of contaminants (e.g. fuel introduced to the application site as a result of accidental spillages) entering the Diseworth Brook through run-off into its tributaries. With appropriate storage of chemicals and fuels within the application site, consideration of weather conditions and a clear accident response procedure in place should a spill occur, the likelihood of contaminated run-off reaching Diseworth Brook and its tributaries would be substantially reduced.	Minor (Not Significant)	ADV	ST	D & IND	T	IRR	
	Construction	Flood Risk – High	No further mitigation required or proposed, and therefore no change from pre-mitigation assessment.	Minor (Not Significant)	ADV	LT	D	P	IRR	
	Construction	Groundwater Quality - Medium	Potential impacts to the Secondary Aquifers as a result of accidental spillages, lateral and vertical migration of leachable, dissolved or free-phase contaminants (for example heavy metals and PAHs) within the made ground at the site or materials imported to the application site entering the groundwater, would be mitigated through the implementation of mitigation measures incorporated in a CEMP. The residual magnitude of impact is “very small” based on the measures included within preparation of a CEMP and appropriate remediation of the site, where required.	Negligible (Not Significant)	ADV	LT	D	T	IRR	
	Construction	Groundwater Resource - Low	No further mitigation required or proposed, and therefore no change from pre-mitigation assessment.	Negligible (Not Significant)	ADV	LT	D	T	IRR	
	Completed Development	Surface Water Features – Hydrological Status - Medium	The proposed development maintains the existing watercourse channel immediately west of the site with no alterations to the proposed hydrological status of the watercourse. The majority of the flow within the watercourse at this location relates to controlled discharge from the East Midlands Airport to the north and are outside the control of this proposed development. However, the proposed drainage strategy seeks to reduce surface water discharge from the site into the watercourse at a greatly reduced rate from the existing baseline during extreme rainfall events (1 in 100 annual probability event) and allows for future climate change which would otherwise be expected to increase contribution to flows in the watercourse.	Minor Beneficial (Not Significant)	BEN	LT	D	P	IRR	
	Completed Development	Surface Water Quality - Low	Water quality treatment is provided to the surface water run-off through methods detailed in the CIRIA 753 SuDS manual (CIRIA, 2015) such that the magnitude of impact from the proposed development is considered to be “small”.	Minor (Not Significant)	ADV	LT	D	T	IRR	
	Completed Development	Flood Risk - High	No further mitigation beyond a Drainage Strategy for the site. Therefore no change from pre-mitigation assessment	Minor Beneficial (Not Significant)	BEN	LT	D	T	IRR	
	Completed Development	Groundwater Quality - Medium	No effects are anticipated during the completed development stage of the proposed development	Negligible (Not Significant)	-	-	-	-	-	
Completed Development	Groundwater Resource - Low	No further mitigation required or proposed, and therefore no change from pre-mitigation assessment	Negligible (Not Significant)	-	-	-	-	-		

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
Built Heritage	Construction	Diseworth Conservation Area (medium)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development would lead to a medium magnitude of impact upon the Diseworth Conservation Area	Minor (Not Significant)	ADV	ST	IND	T	R
	Construction	Long Whatton Conservation Area (medium)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development would lead to a low magnitude of impact upon the Long Whatton Conservation Area.	Minor/Negligible (Not Significant)	ADV	ST	IND	T	R
	Construction	The Grade I Listed Church of St Mary and St Hardulph (NHLE 1361364) (high)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development would lead to a negligible magnitude of impact upon the Church of St Mary and St Hardulph.	Minor/Negligible (Not Significant)	ADV	ST	IND	T	R
	Construction	The Grade II* Listed Church of St John the Baptist (NHLE 1074123) (high)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development would lead to a negligible magnitude of impact upon the Church of St John the Baptist.	Minor/Negligible (Not Significant)	ADV	ST	IND	T	R
	Construction	The Grade II* Listed Langley Priory and attached railings (NHLE 1083563) (high)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development would lead to a negligible magnitude of impact upon Langley Priory and attached railings.	Minor/Negligible (Not Significant)	ADV	ST	IND	T	R
	Construction	The Grade II* Listed Church of St Michael (NHLE 1068865) (high)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development would lead to a low magnitude of impact upon the Church of St Michael.	Minor (Not Significant)	ADV	ST	IND	T	R
	Construction	The Grade II Listed Old Hall Farmhouse (NHLE 1064263) (high)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development would lead to a low magnitude of impact upon the Old Hall Farmhouse.	Minor (Not Significant)	ADV	ST	IND	T	R
	Construction	The non-designated Bleak House (low)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development would lead to a low magnitude of impact upon Bleak House.	Negligible (Not Significant)	ADV	ST	IND	T	R
	Completed Development	Diseworth Conservation Area (medium)	No additional mitigation measures are proposed in respect of operation phase effects. The operation of the proposed development will lead to medium magnitude of impact upon Diseworth Conservation Area.	Minor (Not Significant)	ADV	LT	IND	P	R
	Completed Development	Long Whatton Conservation Area (medium)	No additional mitigation measures are proposed in respect of operation phase effects. The operation of the proposed development will lead to a low magnitude of impact upon Long Whatton Conservation Area.	Minor/Negligible (Not Significant)	ADV	LT	IND	P	R
	Completed Development	The Grade I Listed Church of St Mary and St Hardulph (NHLE 1361364) (high)	No additional mitigation measures are proposed in respect of operation phase effects. The operation of the proposed development will lead to a negligible magnitude of impact upon the Church of St Mary and St Hardulph.	Minor/Negligible (Not Significant)	ADV	LT	IND	P	R
	Completed Development	The Grade II* Listed Church of St John the Baptist (NHLE 1074123) (high)	No additional mitigation measures are proposed in respect of operation phase effects The operation of the proposed development will lead to a negligible magnitude of impact upon the Church of St John the Baptist.	Minor/Negligible (Not Significant)	ADV	LT	IND	P	R

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
Archaeology	Completed Development	The Grade II* Listed Langley Priory and attached railings (NHLE 1083563) (high)	No additional mitigation measures are proposed in respect of operation phase effects The operation of the proposed development will lead to a negligible magnitude of impact upon Langley Priory and attached railings.	Minor/Negligible (Not Significant)	ADV	LT	IND	P	R
	Completed Development	The Grade II* Listed Church of St Michael (NHLE 1068865) (high)	No additional mitigation measures are proposed in respect of operation phase effects The operation of the proposed development will lead to a low magnitude of impact upon the Church of St Michael.	Minor (Not Significant)	ADV	LT	IND	P	R
	Completed Development	The Grade II Listed Old Hall Farmhouse (NHLE 1064263) (high)	No additional mitigation measures are proposed in respect of operation phase effects The operation of the proposed development will lead to a low magnitude of impact upon Old Hall Farmhouse.	Minor (Not Significant)	ADV	LT	IND	P	R
	Completed Development	The non-designated Bleak House (low)	No additional mitigation measures are proposed in respect of operation phase effects The operation of the proposed development will lead to a low magnitude of impact upon Bleak House.	Negligible (Not Significant)	ADV	LT	IND	P	R
	Construction	Non-designated archaeological deposits (known and unknown) (medium – low)	Undertake a programme of archaeological mitigation in order to increase knowledge and understanding of the Iron Age and Roman landscape within the application site. Residual impact would remain unchanged with a loss of archaeological remains leading to a high to medium magnitude of impact.	Minor (Not Significant) – Moderate (Significant)	ADV	LT	D	P	IRR
	Construction	The Bulwarks (Scheduled Monument, NHLE 1003606) (high)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development will lead to a negligible magnitude of impact upon The Bulwarks.	Negligible (Not Significant)	ADV	ST	IND	T	R
	Construction	Moated site with fishponds and flood banks at Long Whatton (Scheduled Monument, NHLE 1008551) (high)	No additional mitigation measures are proposed in respect of construction phase effects. The construction of the proposed development will lead to a negligible magnitude of impact upon the moated site with fishponds and flood defences at Long Whatton.	Negligible (Not Significant)	ADV	ST	IND	T	R
	Completed Development	Non-designated archaeological deposits (known and unknown) (medium – low)	None – the effects during construction would be permanent.	N/A	N/A	N/A	N/A	N/A	N/A
	Completed Development	The Bulwarks (Scheduled Monument, NHLE 1003606) (high)	No additional mitigation measures are proposed in respect of operation phase effects The operation of the proposed development will lead to a negligible magnitude of impact upon The Bulwarks.	Minor (Not Significant)	ADV	LT	IND	P	R
	Completed Development	Moated site with fishponds and flood banks at Long Whatton (Scheduled Monument, NHLE 1008551) (high)	No additional mitigation measures are proposed in respect of operation phase effects The operation of the proposed development will lead to a negligible magnitude of impact upon the moated site with fishponds and flood banks at Long Whatton.	Minor (Not Significant)	ADV	LT	IND	P	R
Climate Change	Construction and Completed Development	Atmospheric greenhouse gas (GHG) concentrations	The proposed development is estimated to generate GHG emissions totaling 1,768,991tCO _{2e} across the 60 year reference study period. The key sustainability features that are proposed to be included in the proposals are consistent with applicable existing and emerging policy	Minor (Not Significant)	ADV	LT	D	P	IRR

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
<p>requirements and good practice design standards for projects of this type. Therefore in line with the IEMA Guidance (now ISEP), this is considered to be a Minor Adverse effect. In line with the guidance, this effect is considered to be not significant.</p>									
Landscape and Visual*	Completed Development	Site Fabric	Effect on site fabric as a result of the permanent change across the site, particularly the loss of openness.	Major Adverse (Significant)	ADV	MT/LT	D	P	R
	Completed Development	Langley Lowlands Character Area (medium – low)	Effect on the Character Area immediately around the application site from the introduction of the proposed development.	Moderate (significant), changing to Moderate/Minor (not significant) after 15 years	ADV	MT/LT	D	P	R
	Completed Development	Landscape Setting of Diseworth Conservation Area	Effect of the landscape setting of the Conservation Area from the introduction of the proposed development.	Moderate (significant), changing to Moderate/Minor (not significant) after 15 years	ADV	MT/LT	ING	P	R
	Completed Development	Receptor Group - Hyam's Lane (PRoW L45/1 (Viewpoint 2, 20 & 21) (high – medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Major (significant), changing to Moderate/Major (remaining significant) after 15 years	ADV	MT/LT	D	P	R
	Completed Development	Receptor Group - PRoW to the north east of Diseworth (Viewpoint 4 & 20) (high-medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Major/Moderate (significant) changing to Moderate (remaining significant) after 15 years	ADV	MT/LT	D	P	R
	Completed Development	Receptor Group – Diseworth (Viewpoints 4 & 7, 19 & 20) (high-medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Moderate/Minor (not significant), remaining at Moderate/Minor (not significant) after 15 years	ADV	MT/LT	D	P	R
	Completed Development	Receptor Group - Grimes Gate and PRoW to the west (L43/1)	Visual effect on users of viewpoint from the introduction of the proposed development.	Moderate (significant), remaining at	ADV	MT/LT	D	P	R

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
(Viewpoint 3) (high-medium)				Moderate (<u>not</u> significant) after 15 years					
Completed Development		Receptor Group – lanes and PRow to the west of Diseworth (Viewpoints 6 & 7) (high-medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Moderate/Minor (not significant), changing to Minor (not significant) after 15 years	ADV	MT/LT	D	P	R
Completed Development		Receptor Group - Area to the south of Diseworth (Viewpoints 8 & 9 & 18) (high-medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Moderate (significant), remaining at Moderate (remaining significant) after 15 years	ADV	MT/LT	D	P	R
Completed Development		Receptor Group - Area between Long Mere Farm and M1 to the south of the A42 (Viewpoint 11) (high-medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Minor (not significant), remaining at Minor (not significant) after 15 years	ADV	MT/LT	D	P	R
Completed Development		Receptor Group - Area around Long Whatton (Viewpoint 10 & 17) (high-medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Minor (not significant), remaining at Minor (not significant) after 15 years	ADV	MT/LT	D	P	R
Completed Development		Receptor Group - Area to the East of the M1 (Viewpoint 12) (medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Minor (not significant), remaining at Minor (not significant) after 15 years	ADV	MT/LT	D	P	R
Completed Development		Key Routes - M1 (low)	Visual effect on users of viewpoint from the introduction of the proposed development.	Negligible (not significant), remaining at Negligible (not significant) after 15 years	ADV	MT/LT	D	P	R
Completed Development		Key Routes - A42 (low)	Visual effect on users of viewpoint from the introduction of the proposed development.	Minor (not significant), remaining at Minor (not significant) after 15 years	ADV	MT/LT	D	P	R

Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible

16 Summary of Mitigation & Residual Effects

Technical Area	Stage	Receptor (Sensitivity)	Residual Impact	Residual Effect					
				Scale of Effect & Significance	ADV / BEN / NEU	ST / MT / LT	D / IND	P / T	R / IRR
Key: ADV/BEN= Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									
	Completed Development	Key Routes - A453 (Viewpoint 1) (medium)	Visual effect on users of viewpoint from the introduction of the proposed development.	Major/Moderate (significant), changing to Moderate (remaining significant) after 15 years	ADV	MT/LT	D	P	R
	Completed Development	Recreational Routes - Cross Britain Way (Viewpoints 4, 5,7,9,10 & 18) (medium-high)	Visual effect on users of viewpoint from the introduction of the proposed development.	Moderate (significant), remaining at Moderate (not significant) after 15 years	ADV	MT/LT	D	P	R
	Completed Development	Recreational Routes - National Cycle Route 15 (Viewpoint 3) (medium-high)	Visual effect on users of viewpoint from the introduction of the proposed development.	Moderate (significant), remaining at Moderate (not significant) after 15 years	ADV	MT/LT	D	P	R

Notes:
 *In respect of Landscape and visual effects relating to the construction stage, these would range from Negligible to those identified for the completed development and therefore have not been repeated herein. However, the construction stage effects would be temporary and would mainly arise through the excavation and re-profiling of the site to form plateaus and the installation of the building frames. These effects would be localised in extent and of short duration and therefore subservient to the main longer-term effects which would arise during the operational phase of the proposed development.

16 Summary of Mitigation & Residual Effects

16.4 ES Update (October 2025) Changes to Original ES Chapter

Table 14.4.1

ES Update (October 2025) Changes to Original ES Chapter

Section Number / Table Number / Figure Number in Original Chapter	Changes to Original ES Chapter	Reason
Throughout Chapter	Text updated to reflect that this Chapter constitutes part of an ES Update.	To confirm the chapter is an ES Update document.
Table 16.2.1	Updates to table to include triggers for mitigation and phasing of conditions.	To confirm the trigger for planning conditions / S106 to control the mitigation requirements.
	Updates to mitigation and enhancement measures as a result of environmental assessment within the technical chapters of the ES Update Chapters 7-14, Volume II and Volume III LVIA.	To reflect the environmental assessment in the ES Update and mitigation proposed to reduce/mitigate the effects of the proposed development.
	Removal of references to third Party Land.	To confirm the updates to the proposed development.
	Amendment to Noise receptors	To reflect the updated noise assessment
	Update to text associated with GCN DLL.	To confirm the acceptability of the DLL approach to mitigate GCN as accepted by Natural England.
	Removal of references to further ecological surveys being required in 2024.	These surveys have been undertaken and are reports in the ES Update Chapter 11 Ecology, Voume II.
	Update of text associated with off-site skylark mitigation.	To reflect the current position with the off-site mitigation.
Section 16.3.1	Update to likely significant effects as a result of environmental assessment within the technical chapters of the ES Update Chapters 7-14, Volume II and Volume III LVIA.	To reflect the updates to the environmental assessment.
Table 16.3.1	Hunter Road replaced with Beverley Road.	Road name amended to align with the National Street Gazetteer
	Update of residual effects associated with environmental assessment within the ES Update technical chapters 7-14 Volume II and Volume III LVIA.	To reflect the updates to the environmental assessment.
	Amendments to the receptors where effects are experienced for the Transport and Access environmental assessment.	To reflect the updates to the environmental assessment as a result of the use of PRTM 2023 modelling data.
	Additional receptors for Landscape and Visual assessment	As a result of additional viewpoints and inclusion of consideration of landscape setting of Diseworth Conservation Area.