Environmental Impact Assessment (EIA) Screening Report

Wilderness Park, Land North of Wilderness Lane, Great Barr

October 2023

Turley

Contents

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Our reference
HIMQ3001

1. Introduction

1.1 Turley is acting on behalf of its client, Wain Estates (Land) Ltd (hereafter referred to as the 'Application'), who are preparing to submit an outline application (with all matters other than vehicular site access reserved) (hereafter referred to as the 'Application') for up to 150 residential dwellings (Use Class C3), a Countryside Park, vehicular, pedestrian and cycle accesses, landscaping, drainage and associated works (hereafter referred to as the 'Proposed Scheme') on Land North of Wilderness Lane (hereafter referred to as the 'Site').

1.2 The 'Site' for the purpose of this EIA Screening Report is approximately 28.62 hectares (ha) in size, covering a larger area than the planning application boundary[1] (which covers approximately 27ha). The Site is currently unmanaged grassland with some structures understood to have been historically used for storage/animal shelters in the north. The Site is bound by Aston University Recreation Centre to the northwest; residential dwellings fronting onto Birmingham Road (A34) to the north; residential dwellings off Peak House Road and Great Barr War Memorial Hall to the east; dwellings off Wilderness lane to the south; and Q3 Academy Great Barr to the south. The Site boundary is defined in **Figure 1: Site Location Plan**.

1.3 This Environmental Impact Assessment (EIA) Screening Report has been prepared in order to obtain a Screening Opinion from Sandwell Metropolitan Borough Council (SMBC) in accordance with Part 2 of the Town and Country Planning (EIA) Regulations 2017 (as amended)[2] (hereafter referred to as the 'EIA Regulations').

1.4 In accordance with Regulation 6, Paragraph 2, this report includes the following information:

- A plan sufficient to identify the land (see **Figure 1: Site Location Plan**);
- A description of the development, including in particular;
  - A high level description of the physical characteristics of the development and, where relevant, of removal works (set out within **Section 2**);
  - A description of the location of the development, with particular regard to the environmental sensitivity of geographical areas likely to be affected (see **Section 3**);

[1] The Site includes a section of Wilderness Lane up to and including its junction with Birmingham Road (A34)/Chapel Lane and a section of Birmingham Road (A34) further north. These sections of the local road network are included to account for access and crossing improvement works for vehicles, pedestrians and cyclists, in addition to accounting for potential foul drainage connection points for the Proposed Scheme. Aside from those required for access, the crossing improvement works and the foul drainage connection works are not part of the planning application and instead will be secured via a Section 106 or Section 278 agreement (as appropriate), to be determined with SMBC.

[2] Town and Country Planning (EIA) Regulations 2017, Statutory Instrument 2017 No.571 as amended by Statutory Instrument 2018 No. 695.

- A description of the aspects of the environment likely to be significantly affected by the development (set out within **Section 6**);
- To the extent the information is available, a description of any likely significant effects of the Proposed Scheme on the environment resulting from;
  - The expected residues and emissions and the production of waste, where relevant (see **Section 6**);
  - The use of natural resources, in particular soil, land, water and biodiversity (see **Section 6**); and
- Such other information or representations as the person making the request may wish to provide or make, including any features of the Proposed Scheme or any measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment (see **Section 6**).

1.5 Furthermore, this report has been prepared in line with Regulation 6, Paragraph 4 (including criteria set out in Schedule 3) and covered the following steps.

Identification of the characteristics of the Proposed Scheme (**Section 2**)

Identification of the characteristics of the Site and its surrounds (**Section 3**)

Taking into account the characteristics of the Proposed Scheme and the Site and surrounds, identification of how Schedule 1 or 2 of the EIA Regulations applies (**Section 4**)

An explanation of how the Proposed Scheme has been appraised within this report and how this report sets out the consideration of likely environmental effects and in-combination effects (**Section 5**)

An appraisal of whether there would be any likely environmental effects, including the identification of any plain or easily achievable mitigation to avoid significant effects (**Section 6**)

An appraisal of whether there would be any likely in-combination effects (**Section 7**)

1.6 Where, through the appraisal of likely environmental effects, mitigation has been identified, this has been collated and set out within a Schedule of Mitigation in **Appendix 1**.

1.7 As such, the information provided within this report is considered sufficient to inform SMBC's Screening Opinion, in accordance with Regulation 6, Paragraph 2.

1.8 In accordance with Regulation 6, Paragraph 6(a), SMBC has three weeks within which to provide a Screening Opinion, from the date of receipt of this request.

2. Characteristics of the Proposed Scheme

Boundary

2.1 All temporary and permanent works will take place within the red boundary as defined on **Figure 1: Site Location Plan**, hereafter referred to as the 'Site', which covers a larger area than the planning application boundary[1]. The sections of Wilderness Lane and Birmingham Road (A34) within the Site include tolerances to enable detailed highways designs/connection works to evolve through their design processes.

Overview of Site Preparation and Demolition/Construction Stage

2.2 It is anticipated that access to the Site for initial site preparation works will be from an existing field gate on Wilderness Lane, at the south-eastern Site boundary. Construction access will continue via this field gate until such a time when the proposed vehicular access point (further northeast on Wilderness Lane) is constructed and functional. The construction access arrangements will be detailed fully within a Construction Traffic Management Plan (CTMP) and controlled through the Construction Environmental Management Plan (CEMP), which is to be conditioned as part of any grant of planning permission [**M1**].

2.3 At the new vehicular access point, 2m-wide pavements will be constructed that connect into the Site and to the existing footpath on the northern side of Wilderness Lane. A new uncontrolled pedestrian crossing will be constructed to the west of the vehicular access and provide pedestrian access across Wilderness Lane to the existing pavement on its southern side. Further east along Wilderness Lane, dropped kerbs and tactile paving will be installed at junctions to improve pedestrian accessibility.

2.4 At the Site's northern extent, a number of access points will be constructed from Birmingham Road (A34) to provide access for emergency vehicles, pedestrians and cyclists.

Road/Crossing Improvements

2.5 The Proposed Scheme will include a series of improvement works to crossings on the local road network[3]. The exact timings of these works are to be determined by the appointed contractor as part of the construction phasing.

2.6 Improvements will be made to Birmingham Road (A34) in the north of the Site that include the conversion of the existing controlled pedestrian crossing to a toucan crossing and works that allow cyclists to cross the two carriageways (and connect into the Site's proposed pedestrian/cyclist access points).

2.7 In addition, existing crossing facilities to the north of the junction of Birmingham Road (A34) and Chapel Lane will be upgraded to improve accessibility from the Site to the east of Birmingham Road (A34). At the Site's western and south-western boundaries, pedestrian and cycle access points will also be created.

[3] As above, these improvement works will be secured via a Section 106 or Section 278 agreement (as appropriate), to be determined with SMBC.

2.8 It is anticipated that both Wilderness Lane and Birmingham Road (A34) will remain open throughout the construction stage. Should works to Birmingham Road (A34) in the Site's northern extent require temporary closure of the adjacent bus stop, it is assumed that an alternative temporary bus stop will be located nearby.

2.9 It is anticipated that a stretch of the Beacon Way Long Distance Path (LDP) that lies outside the western Site boundary and the off-road cycle route outside the south-western Site boundary will remain open for the duration of the construction stage and will be protected by temporary fencing where any works will be undertaken in close proximity.

2.10 To facilitate the creation of the new vehicular access point, a small section of a maintained hedgerow (H1, Category C) will be required to be removed from the south-eastern Site boundary. Additionally, two small sections of an outgrown hedgerow (G14, Category C) will be removed to facilitate the construction of the pedestrian/cyclist accesses from the northern Site boundary. The proposed dwellings will be located centrally within field parcels where possible, however losses of some trees/tree groups will be required to facilitate internal access and the construction of dwellings[4]. A further tree, T5 (English Oak), will be removed due to its Category U classification, being unsuitable for retention on arboricultural grounds.

2.11 All mature trees and retained hedgerows (including T6, a Category A Veteran Tree) will be protected through the implementation of appropriate measures including Root Protection Areas (RPAs) and protective fencing in accordance with BS 5837 (2012) Trees in Relation to Design, Demolition and Construction [**M2**].

2.12 To avoid disturbance to breeding birds, ground clearance works and works to vegetation will be undertaken outside the bird-breeding season (March to September, inclusive). If this is not possible, the area will be checked prior to removal of vegetation or ground works by an experienced ecologist. If active nests are found, vegetation will be left untouched and suitably buffered from works until all birds have fledged. Such works and activities will be stipulate as part of the CEMP, which will be conditioned through as part of any grant of permission [**M1**].

2.13 The existing sheds/structures will require removal and all waste will be segregated into allocated skips for appropriate processing/recycling/disposal. Any hazardous materials (including asbestos) will be removed, handled and disposed of in line with appropriate guidance and regulations[5].

2.14 The strand of Japanese Knotweed *Reynoutria japonica* identified in the northeast of the Site will be removed in line with CIRIA's 'Invasive species management for infrastructure managers and the construction industry (C679)'[6] and undertaken, handled and disposed of by specialist contractors [**M8**].

[4] T8 (English Oak), Category B; T24 (Ash), Category C; part of G6 (Category C); G7 (Category C); part of G8 (Category C); G9 (Category C); parts of G12 (Category C); part of G19 (Category C).
[5] The Hazardous Waste (England and Wales) Regulations 2005 and Control of Asbestos Regulations 2012 and CIRIA C741 (2015).
[6] https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C679&Category=BOOK.

2.15 To obtain appropriate development plateau levels in the north/east of the Site, there will be both areas where levels will reduce (areas of cut) and areas where level will increase (area of fill). Finished floor levels (FFLs) are not anticipated to exceed a 1m increase/decrease when compared to existing ground levels. A cut and fill balance will be broadly achieved across the Site and there is no significant import or export of material required.

2.16 No substantial areas of Made Ground are considered likely to be present due to the Site's agricultural nature[7]. Intrusive investigations will be completed prior to commencement of works to determine the full extent of any contamination and determine the level of any remediation works required. If required, a remediation strategy will be submitted and agreed with SMBC in advance of any construction works taking place.

2.17 Conventional strip foundations are anticipated to be suitable for the proposed dwellings, however foundation design/depth will be devised at the detailed design stage, based on intrusive investigation data indicating the presence/absence of fine grained soils and soil volume change potential [**M4**].

2.18 The Site lies in a Low to Intermediate Probability Radon Area, meaning that less than 1% or 1 – 3% of homes are estimated to be at or above the Action Level[7]. A more detailed specific radon report will be prepared to clarify the zoning of the area proposed for development to ensure that the correct radon protection measures are defined for the proposed dwellings [**M5**].

2.19 No overhead cables cross the Site and there are not anticipated to be any utilities or services underlying the main body of the Site as a result of its history as agricultural land. Although not expected to be encountered, if identified any utilities or services underlying the Site will be diverted or stopped in line with consultation with the relevant Distribution Network Operators.

2.20 Local excavation and trenching works will be required to install services, drainage runs and foundations for structures. Any diversion or reinforcement of utilities will happen as part of the enabling works and any off-Site works will be the responsibility of the utility provider.

2.21 The foul water drainage connection point for the Proposed Scheme is anticipated to be created into either the Severn Trent Foul Water Sewer located beneath Wilderness Lane or the Severn Trent Combined Sewer located beneath Birmingham Road (A34)[8], to be determined at the detailed design stage. A pumping station will be constructed to direct flows from the proposed dwellings to the future connection point [**M6**].

2.22 To ensure safe and efficient operation of the Site during the construction stage, the appointed contractor will provide a detailed CEMP. The CEMP will set the details of the

[7] Card Geotechnics Limited (2023) Land North of Wilderness Lane, Great Barr, Birmingham. Phase 1 Geo-Environmental Report.

[8] The Site boundary incorporates sections of both Wilderness Lane and Birmingham Road (A34) where a number of potential drainage connection points are located, to provide flexibility.

construction process, management of the Site and any temporary mitigation required during the construction stage.

2.23 Welfare facilities and other temporary infrastructure required (i.e. Site Compound, material laydown/storage etc.) will be set up at a designated location within the Site, as determined by the appointed contractor.

2.24 Construction working hours will be from 08:00 – 18:00 on Monday to Friday; 08:00 – 13:00 on Saturday and no works on Sunday or Bank Holidays, unless otherwise agreed with SMBC. All construction activities will be in accordance with the Considerate Constructors Scheme.

Development Principles

2.25 The Proposed Scheme is for up to 150 residential dwellings (Use Class C3), built out across the northern/eastern extents of the Site and set within the existing field pattern (with the exception of access).

2.26 The proposed dwellings fronting onto Birmingham Road (A34) in the north of the Site will be up to 3 storeys (up to 12m above FFLs). Dwellings up to 2.5 storeys (up to 10.5m above FFLs) will be located in the Site's north-eastern extent, whilst those up to 2 storeys (up to 9m above FFLs) will be face into the centre of the Site/onto Wilderness Lane in the southeast of the Site.

2.27 One vehicular access point from Wilderness Lane will serve the Proposed Scheme, from which an internal spine road will connect to all proposed dwellings. A number of access points for emergency vehicles, pedestrians and cyclists will be provided from Birmingham Road (A34).

2.28 In addition to the provision of footpaths through the proposed residential development area, the Beacon Way LDP will be diverted into the Site via an access point in the north-western corner and follow the western Site boundary before exiting in the Site's south-western corner.

2.29 A segregated cycle link will connect from the northern Site boundary via the proposed area of residential development and connect to the existing off-road cycle path in the southern corner of the Site.

2.30 A Countryside Park will occupy approximately 23.09ha of the Site, in which landscaped public open space, a Locally Equipped Area for Play (LEAP) (offset by 20m from the proposed dwellings) and Sustainable Drainage System (SuDS) features will be located.

2.31 The hedgerows/trees required to be removed during construction (**Paragraph 2.10**) will be compensated for by the planting and long-term management of new species-rich hedgerows [**M7**].

2.32 To enhance the Site's suitability to nesting birds, a range of nest boxes will be placed on suitable trees and the proposed dwellings (where appropriate) [**M9**].

2.33 The existing pond and topographical depression (i.e. dry pond) located in the north-eastern and eastern extents of the Site, respectively, will be retained and their surrounding marginal/aquatic vegetation will be enhanced with native plants to maximise their ecological value [**M7**].

2.34 SuDS including attenuation basins will be incorporated into the surface water drainage network, in accordance with CIRIA 753 – The SuDS Manual[9] where practical, and will be designed to attenuate volumes for a 1 in 100 year storm event with a 40% allowance for climate change[10]. Attenuation basins will be located at the topographical low points of the Site and be fitted with vortex flow controls (e.g. hydrobrakes) to restrict surface water discharge to Qbar (greenfield) rates [**M12**].

2.35 Surface water from the proposed attenuation basins will discharge to the existing network of field drains within the Site. Where possible, interception storage will be included as part of the treatment train to manage pollutants at source and so reduce the level of pollution in runoff from the Site.

2.36 A pumping station will discharge foul water flows from the proposed dwellings to the foul water sewer (beneath either Wilderness Lane or Birmingham Road (A34)) [**M6**].

2.37 Waste generated by the Proposed Scheme during operation will primarily comprise residential waste, with a small portion of green related waste. The Proposed Scheme will include appropriate facilities for the storage, handling and collection of these waste types [**M17**].

2.38 The energy strategy for the Proposed Scheme will be devised in accordance with the Future Homes Standard 2025, which will ensure that the proposed dwellings will produce 75% less carbon emissions than if they were to be constructed in line with the current Part L (Conservation of fuel and power) of the Building Regulations. To be determined at the detailed design stage, a range of carbon reduction measures will be considered, including the use of energy efficient boilers or Air Source Heat Pumps, solar photovoltaic (PV) panels and electric vehicle charging points [**M13**].

2.39 All future lighting installations will be designed and installed in line with relevant standards and guidance[11].

[9] CIRIA (2015) The SuDS Manual.

[10] PJA (2023) Wilderness Park: Flood Risk Assessment and Drainage Strategy. September 2023.

[11] CIE 150: 2017 – Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations, 2nd Edition; ILP GN01 - Guidance Notes for the Reduction of Obtrusive Light 2020; BS 5489-1 : 2020 – Code of Practice for the Design of Road Lighting; BS EN 13201-2:2015 – Road Lighting – Part 2: Performance Requirements; BS EN 12464 – 2 2014 – Outdoor Work Spaces; SLL Guide to Limiting Obtrusive Light 2012; SLL Lighting Handbook 2009; LG 6 (CIBSE) – The Exterior Environment 2016; and ILP Guidance Note 08/18 Bats and Artificial Lighting in the UK.

Timescales

2.40 The Site preparation and construction works are anticipated to commence in 2025 and be completed across a built period of approximately 3 years. The Proposed Scheme will be fully operational in approximately 2028.

3. Site Context

3.1 A number of studies/reports have been undertaken and prepared to support the Application. Publicly accessible information (i.e., nationally held environmental data sets) and the following Application reports have been used to inform this EIA Screening Report and the description of the Site and surrounding area:

- Air Quality Assessment[12];
- Arboricultural Assessment[13];
- Ecological Impact Assessment[14];
- Flood Risk Assessment and Drainage Strategy[15];
- Heritage Impact Assessment[16];
- Landscape and Visual Appraisal and Green Belt Assessment[17];
- Noise Impact Assessment[18];
- Phase 1 Geo-Environmental Report [19];
- Transport Assessment[20].

Location and Setting

3.2 The Site is dominated by unmanaged grassland crossed by a network of hedgerows. Some abandoned stable buildings are located in the north of the Site, in addition to a pond and topographical depression (in the north and east of the Site, respectively).

3.3 The Site is broadly surrounded by residential areas with open space comprising sports facilities at the Aston University Recreation Centre/Q3 Academy Great Barr and areas of scrub/woodland.

[12] BWB (2023) Wilderness Park: Great Barr: Air Quality Assessment. August 2023.
[13] FPCR (2023) Land North of Wilderness Lane, Great Barr, Birmingham: Arboricultural Assessment: September 2023.
[14] FPCR (2023) Wilderness Park: Land North of Wilderness Lane, Great Barr, Birmingham: Ecological Impact Assessment. October 2023.
[15] PJA (2023) Wilderness Park, Land North of Wilderness Lane, Great Barr: Flood Risk Assessment and Drainage Strategy. October 2023.
[16] EDP (2023) Land at Birmingham Road, Great Barr: Heritage Impact Assessment.
[17] FPCR (2023) Wilderness Park, Great Barr: Landscape and Visual Appraisal and Green Belt Assessment. August 2023.
[18] BWB (2023) Wilderness Park: Great Barr: Noise Impact Assessment. August 2023.
[19] Card Geotechnics Limited (2023) Land North of Wilderness Lane, Great Barr, Birmingham. Phase 1 Geo-Environmental Report.
[20] PJA (2023) Land North of Wilderness Lane, Great Barr: Transport Assessment: October 2023.

Historic Land Use

3.4 Historic mapping shows that the Site has remained in agricultural use, with field parcels in 1885[21] presenting a similar configuration to those seen in the present day.

3.5 External to the Site, residential development expanded along Wilderness Lane and Birmingham Road (A34) (historically names Pig Lane) through the 20th century. A school was first marked to the south of the Site in a 1971 – 1972 OS map, and the neighbouring sports fields to the west were first mapped in 1980 – 1982.

Connection and Access

3.6 The Site is currently accessible from a field gate on Wilderness Lane, with no permissive footpaths or Public Rights of Way (PRoWs) located within the Site.

3.7 To the west of the Site, however, lies the Beacon Way Long Distance Path (LDP) which is a walking route from West Bromwich into Staffordshire. To the south of the Site lies an off-road cycle route which connects into National Cycle Network Route 5 (Thames – Midlands – North Wales, from Reading to Holyhead).

3.8 Wilderness Lane connects to Birmingham Road (A34) in the Site's far-eastern extent, which facilitates access to Junction 7 of the M6 (and the West Midlands/North West beyond), whilst the remainder of the southbound A34 connects into Birmingham City Centre.

Environmental Designations

3.9 **Table 3.1** provides a summary of the key characteristics of the Site and surrounding area and any notable sensitive receptors on a topic by topic basis.

Table 3.1: Summary of key characteristics of the Site and surrounding area

Topic	Summary
Air Quality	The Site is located within the Sandwell Air Quality Management Area (AQMA), declared for potential exceedances in annual mean nitrogen dioxide (NO_2) concentrations, whilst the Walsall AQMA (adjacent to western Site boundary) and is declared for exceedances in both in both 1-hour and annual mean NO_2 concentrations. The closest SMBC air quality monitoring site to the Site (KE, Ragley Drive, Great Barr, approximately 160m south of the Site) recorded annual mean NO_2 concentrations of 18.0µg.m^{-3} in 2022 (the latest data available). Results of monitoring at this Site have remained well below the Air Quality Objective (AQO) for NO_2 (40µg.m^{-3}) since monitoring began in 2015. The nearest monitoring site for particulate matter (PM_{10} and $PM_{2.5}$) (Wilderness Lane, Great Barr, approximately 260m south of the Site) recorded concentrations of PM_{10} at 12.0µg.m^{-3} and of $PM_{2.5}$ at

[21] Ordnance Survey (OS) (1886) Staffordshire Sheet LXVIII.NE. Surveyed 1885.

Topic	Summary
	7.0µg.m^{-3} in 2022 (also well below their current respective AQOs of 40µg.m^{-3} and 25µg.m^{-3}). Other than traffic on the local road network, no notable sources of odour or dust are present in the Site/surrounding area.
Biodiversity	The nearest national/European statutory designed sites (Cannock Extension Canal Special Area of Conservation (SAC) and Site of Species Scientific Interest (SSSI)) are located approximately 8.8km north of the Site, and are designated for aquatic flora and fauna. The following statutory designated sites are located within 2km of the Site: • Merrion Wood Local Nature Reserve (LNR) (ancient woodland) (directly north); • Hollywood LNR (woodland) (1.3km southeast); • Gorse Farm Wood LNR (woodland, heathland and grassland (1.5km southeast); and • Forge Mill Lake LNR (lake, meadows and woodland) (1.5km south). In addition, the Site (excluding sections of Wilderness Lane and Birmingham Road (A34)) is designated within the Peakhouse Farm Site of Importance for Nature Conservation (SINC). Other non-statutory designated sites include Hill Farm Bridge Fields SINC and Site of Local Importance for Nature Conservation (SLINC) (10m southwest) and Wilderness Wood SINC (20m southeast). On-site habitats: • The Site is dominated by grassland, which was considered to be relatively species-poor during an Extended Phase 1 Habitat Survey (overall County level of importance); • Grassland in the northeast of the Site is encroached by ruderal species, scrub, dense bramble and very species-poor grassland; • Networks of native hedgerows across the Site range from moderate – high value (approx. 80%) to low – moderate value (approx. 20%) (overall Couty level of importance); • Treelines at the southern and western Site boundaries are in moderate condition (overall local level of importance across the Site); • Mature trees included a veteran tree (oak) (County level importance) and ash, hazel, goat willow and field maple (no more than local level importance); • The pond in the north of the Site (P1) supports a number of floral species, whilst the topographical depression in the east of the Site (P2) is only seasonally wet with no aquatic species present; and • A strand of Japanese Knotweed was found in the northeast of

Topic	Summary
	the Site. Protected/Notable Species: • An updated tree roost assessment identified 23 trees across the Site with features suitable to support roosting bats (16 low potential and 5 moderate potential). The agricultural structures in the north of the Site were reported to have a negligible potential to support roosting bats; • Transect and Static bat surveys undertaken in May, July and August 2023 and found bats to present foraging as opposed to commuting behaviour (i.e. not movements along a specific route through the Site); • A number of breeding bird species were recorded at the Site in 2023, including Dunnock (the only confirmed breeder) and Whitethroat, House Sparrow, Bullfinch, Swift, Greenfinch and Wren (probably breeders); • eDNA surveying found great crested newts (GCNs) to be absence from Pond P1 on-Site and two others in the vicinity, whilst the topographical depression (P2) was dry at the time of surveying to is unsuitable to support breeding GCNs; and • The Site was considered unlikely to support a rare or notable invertebrate assemblage.
Built Heritage and Archaeology	Notable built heritage designations within close proximity to the Site include: • Great Barr Vicarage (Grade II listed) (175m east); • Walsall (or Merrion's) Lodge (Grade II listed) (210m north); • Pool house, junction of Pool Road and Arran Close (Grade II listed) (300m south); and • Hill Farm bridge, Brackenhall Drive, Rushall Canal (Grade II listed); (315m southwest). Great Barr Conservation Area is located adjacent to the northern Site boundary and approximately 140m east of the Site's junction at Birmingham Road (A34)/Chapel Lane. Great Barr Hall Registered Park and Garden (RPG) (Grade II) (associated with the Grade II* listed Great Barr Hall) is located adjacent to the northern Site boundary and approximately 250m east of the Site's junction at Birmingham Road (A34)/Chapel Lane. With respect to non-statutory designations: • A land parcel in the southeast of the Site is designated as Archaeological Priority Area (APA) 24: Peak House Farm Moated Site, in its own right, due to it containing the remains of a possible moated site; • The Site, in addition to further areas to the south, is located within the Area of High Historic Landscape Value (AHHLV) 25:

Topic	Summary
	Peak House Farm System, as it is considered to represent a well-preserved pre-enclosure field system; and • The Sandwell Historic Environment Record (HER) identifies the finding of a polished stone axe dated to the Neolithic period in the Site's northern extent, however it is considered unlikely that that this find indicates the presence of associated archaeology features/deposits. Geophysical and trial trenching surveys undertaken across the Site found few features of archaeological interest, with most considered to represent former field boundaries, of no more than negligible archaeological interest.
Community and Socio-Economics	According to the 2021 census data[22], the SMBC administrative area has a total population of 341,700, of whom 151,100 were economically active (69.1%), which is lower than the average for both the West Midlands (77.5%) and Great Britain (78.4%) as a whole. There are no existing community facilities within the Site. The closest GP surgery and medical centre to the Site is Queslett Medical Centre (2.5km east), which is accepting new patients. The closest primary school to the Site is St Margaret's CofE Primary School (approximately 50m northeast), whilst a number of others are located within a 2-mile walking distance. Together, primary schools within a 2-mile walking distance from the Site have capacity to accept new pupils. The Q3 Academy Great Barr is the closest secondary school to the Site (located directly south), also with a number of others located within a 3-mile walking distance. Together, secondary schools within a 3-mile walking distance from the Site have capacity to accept new pupils.
Flooding and Hydrology	The Environment Agency Flood Map[23] (flood risk from rivers and seas) confirms that the Site is located within Flood Zone 1 which has a low probability of flooding (defined as *'land having a less than 1 in 1,000 annual probability of river or sea flooding'*). Linear areas of low, medium and high risk of surface water flooding are consistent with existing drainage channels, through which surface water drains with the aid of topography to the Rushall Canal (approximately 230m west). The Site is underlain by both Secondary A and Secondary B aquifers and the Site is not underlain by a Groundwater Source Protection

[22] Nomis (2023) Labour Market Profile – Sandwell. Available at: https://www.nomisweb.co.uk/reports/lmp/la/1946157189/report.aspx?town=great%20barr#tabeinact [Accessed 12/09/23].
[23] Flood map for planning (no date). Available at: https://www.gov.uk/check-long-term-flood-risk

Topic	Summary
	Zone (SPZ). Flood risk from groundwater is considered to be low, due to the absence of groundwater strikes in boreholes taken to the east of the Site (in similar geology to that underlying the east of the Site). Flood risk from the Rushall Canal is considered to be low due to topography, whereby the Site falls from approximately 160m above ordnance datum (AOD) in its north-eastern corner to approximately 126m AOD in the southwest, with the Rushall Canal situated at approximately 118m AOD. No significant watercourses have been identified within the Site, with the exception of the pond and topographical depression located in the north and east of the Site, respectively. Natural drainage channels within the Site convey surface water to the Rushall Canal.
Ground Conditions	There are no designated geological sites (e.g. Local Geological Sites) within or adjacent to the Site. Bedrock underlying the Site is anticipated to comprise the Rubery Sandstone Member (Sandstone) in the north-western corner, the Coalbrookdale Formation (Mudstone) in the south-western corner, the Enville Member (Sandstone) in the centre/west. Geological fault lines divide areas of bedrock in the west of the Site. Superficial deposits are not expected to underly the Site, however some alluvial deposits may be located at the on-Site pond, topographical depression and/or drainage channels. No large areas or thicknesses of Made Ground are anticipated, however, it is possible that localised Made Ground may be present particularly where ponds may have been infilled or surrounding the agricultural structures present on-site. The presence of Asbestos is not anticipated on site. However, given the nature and age of the structures present within the north-eastern section of the Site, there may be Asbestos Containing Materials (ACM) within them. The Site lies in both a Lower probability radon area (where less than 1% of homes are estimated to be at or above the Action Level) and an Intermediate probability radon area (where to 3% of homes are estimated to be at or above the Action Level).
Lighting	Lighting is present on the roadside of Wilderness Lane and Birmingham Road (A34), however no lighting sources are present within the main body of the Site. As such, the lighting environment of the Site is anticipated to range from E2 (‘rural district brightness’) in the centre of the Site, to the E3 Environmental Zone (‘medium district brightness’) on/adjacent to the local road networks.
Noise	A baseline noise survey undertaken over a 24-hour period in the

Topic	Summary
	north of the Site (on the southern carriageway of Birmingham Road (A34)) and at the south-eastern Site boundary (on Wilderness Lane) found their noise environments to be dominated by road traffic noise.
Landscape and Visual	The Site lies within National Character Area (NCA) 67 'Cannock Chase and Cank Wood', characterised by woodland, 19th and 20th century red brick buildings and a complex settlement pattern. The Black Country Historic Landscape Characterisation locates the Site within character area SD02 'Newton, Hamstead and Great Barr', and adjoins historic character area WL 11 'South East Walsall', which are again characterised by 20th century housing and open recreational land. On the Site, irregularly shaped field compartments comprise outgrown hedges and some hedgerow trees. Surrounding the Site are 20th century dwellings and sport facilities (to the west and south). There are no specific associations between the Site and its surrounding context, and no particularly rare or unusual features are present within it. With respect to visual amenity, the elevated eastern/north-eastern part of the Site is visible from the settlement to the south-west. Vegetation at the Site's western and southern boundaries help to filter/screen views of the Site, whilst the Site is visually contained from views from the east by existing residential development. Long distance views from the north are also screened by woodland at Merrion's Wood.
Major Accidents and Disasters	A review of the 'Web-App for Planning' on the Health and Safety Executive (HSE) website[24] shows that the Site and adjacent areas do not fall within any Consultation Zones. There are no COMAH sites within 3 miles of the Site.
Waste	Given the Site comprises grassland, there are unlikely to be significant volumes of waste produced.

[24] Health and Safety Executive (HSE). https://pa.hsl.gov.uk/ Accessed: 12/09/2023.

4. Schedule of the Proposed Scheme

4.1 In line with the EIA Regulations, the Proposed Scheme has been appraised against the development descriptions contained within Schedule 1 and Schedule 2.

4.2 Based on the characteristics of the Proposed Scheme (**Section 2**), the Proposed Scheme would not constitute Schedule 1 development.

4.3 As established in **Section 3**, the Site is not located within a 'Sensitive Area'[25], within the meaning of the EIA Regulations. The thresholds set out within Schedule 2 should therefore be considered.

4.4 Following an appraisal against Schedule 2 of the EIA Regulations, the Proposed Scheme is considered to fall under Schedule 10(b) – *Urban development projects.* As the quantum of housing (up to 150) meets the 150 dwelling threshold under 10(b)(ii), and the Site area (approximately 28.62ha) is greater than the 5ha threshold under 10(b)(iii).

4.5 As outlined within the EIA Regulations and Planning Practice Guidance, the exceedance of the threshold/criteria does not automatically determine that the Proposed Scheme is 'EIA Development', but rather that the '*proposal needs to be screened by the local planning authority to determine whether significant effects on the environment are likely and hence whether and Environmental impact Assessment is required*'[26].

4.6 The selection criteria for Schedule 2 development are detailed within Schedule 3 of the EIA Regulations and are as follows:

- Characteristics of development;
- Location of development; and
- Types of characteristics of the potential impact.

4.7 The characteristics of the Proposed Scheme were set out in **Section 2** and the location of the Site in **Section 3**. The following sections consider the types and characteristics of the potential impact, termed as an appraisal of likely environmental effects.

[25] Sites of Special Scientific Interest and European Sites (national site network sites); National Parks, the Broads and Areas of Outstanding Natural Beauty; and World Heritage Sites and Scheduled Monuments.
[26] Planning Practice Guidance Paragraph: 017 Reference ID: 4-017-20170728.

5. Approach

Appraisal of Likely Environmental Effects

5.1 The appraisal of likely environmental effects, set out within **Section 6**, has been based on baseline information presented within **Section 3** and has considered likely environmental effects arising from the Proposed Scheme, as detailed within **Section 2**. The appraisal has focused on environmental effects and whether any of these are considered '*likely*' and '*significant*' at receptors, with consideration to the following factors in Regulation 4, Paragraph 2 (and expanded on in Schedule 4, Paragraph 4) of the EIA Regulations:

- Population and human health;
- Biodiversity;
- Land, soil, water, air and climate;
- Material assets, cultural heritage and the landscape; and
- The interaction between the above factors.

5.2 Regulation 6, Paragraph 2 allows for the discussion and identification of project specific measures to avoid and/or prevent significant adverse environmental effects, specifically stating;

'A person making a request for a screening opinion in relation to development where an application for planning permission has been or is proposed to be submitted must provide the following—…

…(e) such other information or representations as the person making the request may wish to provide or make, including any features of the proposed development or any measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment'.

5.3 As such, as part of the appraisal of likely environmental effects set out in **Section 6**, mitigation measures have been considered in order to understand/ameliorate the environmental effects associated with the Proposed Scheme. Mitigation measures have only been considered if they are specific, easily achievable and if there is a high degree of confidence in their effectiveness and implementation.

5.4 Where mitigation has been identified at this stage, this has been clearly identified for the benefit of SMBC with the use of a reference system within the text (use of M1, M2, etc.) that links to the Schedule of Mitigation provided as **Appendix 1** that contains a summary of all mitigation identified.

Appraisal of In-Combination Effects

5.5 In line with Schedule 3 of the EIA Regulations, the '*cumulation of the impact with the impact of other existing and/or approved development*' has also been taken into consideration and is set out in **Section 7**.

5.6 At present, there is no widely accepted methodology or best practice for the assessment of cumulative effects (especially at the screening stage). In order to determine the likelihood of possible in-combination effects (i.e. effects with other existing/approved developments), a qualitative appraisal has been undertaken.

5.7 To identify 'existing and/or approved development' (hereafter referred to as 'Approved Projects') for consideration of in-combination effects with the Proposed Scheme, a review of The Landstack[27] map function to identify planning applications from SMBC, Birmingham City Council (BCC) and Walsall Council (WC) areas, the Nationally Significant Infrastructure Project (NSIP) register[28], Transport and Works Order Act application register[29] and Parliament Hybrid Bill registers[30] have been undertaken in order to identify projects in proximity to the Site (taken as circa 1km), based on the following criteria:

- Permitted applications either under construction or not yet implemented;
- Applications with a resolution to grant planning permission;
- Submitted applications not yet determined but which have the potential to be determined prior to the determination of the application for the Proposed Scheme;
- All refusals subject to appeal procedures not yet determined; and
- The project being of a relevant scale: the threshold for consideration has been set as the Schedule 2 criteria in the EIA Regulations, at which there is a potential for 'likely significant effects'. However, it is recognised that this needs to be applied with caution.

5.8 Projects identified, which met these criteria have been considered against the following points (where sufficient information allows):

- Is there or likely to be a concurrent construction or operational stage with the Proposed Scheme?
- Is there potential that the Proposed Scheme shares common sensitive receptors with the identified approved projects?

[27] Landstack is an interactive mapping tool that displays all planning applications submitted to local planning authorities and automatically updates on a weekly basis.
[28] https://infrastructure.planninginspectorate.gov.uk/projects/.
[29] https://www.gov.uk/government/collections/twa-inspector-reports-and-decision-letters.
[30] https://infrastructure.planninginspectorate.gov.uk/projects/.

5.9 A high-level qualitative appraisal, taking into account the above approach, has been set out in **Section 7**. The appraisal has been undertaken on receptor category basis as in order for there to be a potential in-combination effect, there needs to be more than one potential effect on the same receptor at the same time.

6. Appraisal of Likely Environmental Effects

6.1 Given the nature of the Site and the Proposed Scheme, a number of environmental effects are not considered to be significant due to an absence of relevant receptors (**Section 3**) or source of effects (**Section 2**). In addition, for a number of environmental effects, although an effect may be possible, the anticipated change brought about by the Proposed Scheme is considered to be minimal. These effects are discussed below:

Site Preparation and Construction

- **Loss of agricultural land** – No agricultural land classification (ALC) survey data is available for the Site, however the Site is not currently in agricultural production and is marked as 'Non Agricultural' land on Natural England's provision mapping. It is noted that the Site occupies and area greater than 20ha, however only approximately 3.91ha of greenfield land will be developed as part of the Proposed Scheme. As such it is considered unlikely that more than 20ha of Best and Most Versatile (BMV) agricultural land will be removed from agricultural activity, and so would not trigger the 20ha threshold requires consultation with Natural England. As such, the loss of agricultural land is not considered to be significant;

- **Changes to surface water flows and increase in flooding during construction** – As described in **Section 3**, no waterbodies other than the pond/topographical depression (which are to be retained) are located within the Site, with drainage ditches leading to the southwest of the Site. The Site is located within Flood Zone 1 (i.e. low probability flooding), within the area where dwellings will be constructed (in the north/east of the Site) being at low risk of flooding from sewers and surface water flooding. A temporary drainage system will be installed at the Site during construction to manage the surface water until the operational Drainage Strategy has been implemented [**M12**]. In addition, appropriate measures will be implemented as part of a CEMP [**M1**] in line with relevant standards and guidance, including British Standard 8582:2013 – Code of practice for surface water management for development sites[31] and CIRIA C532[32]. As such, changes to surface water and increased risk of flooding are considered unlikely to be considered significant;

- **Encountering unstable ground conditions** – The foundation design/depth for the Proposed Scheme will be devised at the detailed design stage (as a condition to any planning approval), based on intrusive investigation data indicating the presence/absence of fine grained soils and soil volume change potential [**M4**]. The Phase 1 Geo-Environmental Report prepared in support of the Application confirmed that "*should fine grained cohesive soils be encountered underlying the site a full assessment on the effects of any trees and hedgerows within the*

[31] British Standard 8582:2013 – Code of practice for surface water management for development sites.
[32] CIRIA (2001) C532 Control of water pollution from construction sites. Guidance for consultants and contractors.

influence of proposed housing plots on foundation depths will need to be undertaken in accordance with NHCB Standards 2023 Clause 4.2." All necessary groundworks will be implemented in order to provide suitable construction platform(s) (i.e. removal of any compressible/unstable ground encountered, appropriate foundation typology or shoring of ground) during enabling works and/or construction, in line with relevant standards and building regulations including CIRIA Report C572: Treated ground engineering properties and performance; British Research Establishment document FB75: Building on Fill – Geotechnical Aspects and BS 6031:2009: Code of Practice for Earthworks. These measures will be documented within the CEMP [**M1**]. With consideration of Site's bedrock geology, and in accordance with standard guidance, this effect is deemed unlikely to be significant; and

- **Changes to economic productivity and creation of additional construction jobs** – During construction, the appointed contractor is unlikely to need to take on significant additional staff in order to complete the works, nor will the activities result in a noticeable indirect or induced effect on the local economy due to the modest scale of the Proposed Scheme. Therefore, changes to economic productivity and the creation of additional construction jobs are not considered to be significant.

Operation

- **Increased demand for education provision (early years, primary, secondary)** – The Proposed Scheme includes up to 150 dwellings which will increase the population on-Site (some of which will be new to the area and some as a result of relocation from the area). Nonetheless, the increased population on-Site has the potential to increase demand on local education provisions, depending on the demographics of the future residential properties. However, due to the relatively modest scale of the Proposed Scheme, this increase in demand is considered to be limited and could likely be accommodated through existing educational infrastructure in the surrounding area, which is noted to have capacity for new student enrolments (**Section 3**). Any capacity issues would be appropriately managed through a financial contribution to SMBC, if considered necessary, to help ease pressure on local education provisions in the local community [**M14**]. As such, any increased demand for education provision is not considered to be significant;

- **Increased demand for healthcare infrastructure (GPs, dentists, urgent care)** – As above, the increase in population could increase demand for local healthcare services. In **Section 3**, it was noted that nearby GPs are accepting new patients and it is assumed they have the capacity to support a population increase, given the relatively modest scale of the Proposed Scheme. If any capacity issues do arise, they would be appropriately managed through a financial contribution to SMBC, if considered necessary, and in accordance with SMBC's policy guidelines to ease pressure on local healthcare provisions in the local community [**M14**]. As such, increased demand for healthcare infrastructure is not considered to be significant;

- **Expenditure by residents in the local economy** – New residents of the Proposed Scheme will spend in the local economy. However, given the relatively modest scale of the Proposed Scheme (as only up to 150 dwellings are proposed), there is not likely to be a significant noticeable effect on the local economy due to additional household expenditure. In addition, not all residents will be new to the area, with some likely to relocate from the area. Therefore, expenditure by new residents, whilst beneficial, is not considered to be significant;

- **Crime levels and community safety** – The Proposed Scheme will be designed in line with appropriate national guidance and standards with respect to crime prevention and safety [**M15**]. Furthermore, the Proposed Scheme will be in 24-hour use due to its residential nature, which will provide a level of security through surveillance. Therefore, the Proposed Scheme is not considered to result in a significant change to crime levels or a decrease in community safety;

- **Changes to groundwater recharge** – The Proposed Scheme will increase the level of impermeable hardstanding across the Site which may reduce groundwater recharge. As defined in **Section 3**, the Site overlies both Secondary A and Secondary B bedrock aquifers. However, given the small area that the area proposed for development occupies of these underlying aquifers, and their designation as secondary rather than primary aquifers, the development of this area of the Site (leaving the west and south of the Site as undeveloped land) is not anticipated to affect the recharge of the aquifer. As a result, changes to groundwater recharge are considered unlikely to be significant; and

- **Increase in demand on public transport** – The residential units proposed will result in an increase in population using local public transport. However, given the proposed dwellings' location within a short walking distance of bus stops along Birmingham Road (A34) and their relatively modest scale (as only 150 dwellings are proposed), the increased demand on public transport is considered unlikely to be significant.

6.2 Where a receptor and effect have been identified, an appraisal of likely environmental effects is provided within **Table 6.1**. The appraisal has focussed on possible effects during the construction and operational stages of the Proposed Scheme. Where possible, conclusions have been made as to whether the likely environmental effects are significant.

Table 6.1: Appraisal of Likely Significant Effects

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
Construction Stage			
C1	Disturbance associated with noise, vibration, light spill/glare, dust, particulate matter and other pollutants generated by temporary on-Site demolition and construction activities	Local community, including existing residents	The local community, comprising nearby residents, workers and general members of the public using public areas (i.e. footpaths/roads) may experience temporary nuisance/disturbance throughout the demolition and construction stage of the Proposed Scheme, as a result of noise, vibration, light spill/glare, dust and particulate matter emissions from machinery, plant or general works/activities. In terms of receptors, their tolerance and sensitivity are considered to be varied, with transient receptors (i.e. users of the Beacon Way LDP) considered to have a lower sensitivity than residents, which are considered to be of higher sensitivity. Furthermore, all disturbance effects arising during construction are considered temporary (given the proposed construction programme), short-term and reversible. There is the potential for dust and particulate matter emissions to be generated by construction activities. Such emissions will be short-term and temporary and will be managed through the implementation of a Dust Management Plan (DMP), which will include dust management measures in line with appropriate guidance[33], as part of a CEMP [**M1**], Such measures are likely to include: • Providing screening for dust generating activities and covering any material stockpiles; • Implementation of a wheel washing system; and • Regular site inspections and liaison with the local community. There will be additional vehicles travelling to and from the Site during the construction stage. However, the number of movements associated with construction is anticipated to be low, and

[33] IAQM Guidance on the Assessment of Dust from Demolition and Construction (2023) IAQM. Available at: https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-dust-2023-BG-v6-amendments.pdf [Accessed 18/10/2023].

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			given that background air quality levels at the Site have been found to be well below their respect AQOs (**Section 3**), changes in local air quality are not considered to be significant. Noise will be generated by construction activities (including associated with construction traffic) which has the potential to impact surrounding receptors. Vibration may also be generated from certain activities on-Site (e.g. construction plant, tools, etc.). Construction noise and vibration from on-site activities can generally be controlled by measures included as part of the CEMP [**M1**] through adherence to Best Practicable Means and methods set out in BS5228:2009+A1:2014 Code of Practice for noise and vibration control on construction and open sites[34]. In terms of construction traffic, whilst there will likely be an increase in traffic on the Site access roads, traffic of this volume is not anticipated to represent an overall change of more than 100%, which would trigger a 3dB in road traffic noise levels that would become noticeable. As such, construction noise and vibration effects are not considered to be significant. In addition, the identified effects from other sources (e.g. lighting) are well understood and measures to avoid, reduce or offset are well defined by best practice measures set out in relevant guidance, including (but not limited to): • Control of Pollution Act 1974[35]; and • ILP Guidance Note 1 for the reduction of obtrusive light 2021[36]. Best practice measures will be delivered via the implementation of a CEMP [**M1**] prepared by the appointed contractor and submitted to SMBC for approval prior to the commencement of on-Site construction activities. Overall, through the application of the identified mitigation, disturbance associated with noise, vibration, light spill/glare, dust/particulate matter and other pollutant emissions generated by

[34] BSI (2014). Code of practice for noise and vibration control on construction and open sites – Part 1: Noise. BS 5228-1:2009+A1:2014
[35] Control of Pollution Act 1974. 1974 c. 40.
[36] Institute of Lighting Professionals (2021). Guidance Note 01/21: for the reduction of obtrusive light 2021.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			temporary on-Site activities is considered unlikely to be significant.
C2	Loss/disturbance to below ground heritage assets and historic Site features of interest	Below ground heritage assets	As set out in **Section 3**, the Heritage Impact Assessment prepared in support of the Application established that a field parcel in the southeast of the Site is defined as the non-designated APA 24: Peak House Farm Moated Site, in its own right. However, the Heritage Impact Assessment recognised that the possible moat is located wholly outside of the footprint of the proposed dwellings. Furthermore, due to the proposed dwellings' location in north/east of the Site only, approximately 83% of the existing field system would be retained as open space. As such any loss of the APA's archaeological significance would be '*no more than small or limited*'. Regarding the non-designated AHHLV 25: Peak House Farm System, which comprises examples of pre-enclosure field systems in the southeast of the Site and beyond, approximately 9.4% of its area will be lost as a result of the construction of the proposed dwellings. The vast majority of the AHHLV will, therefore, be retained and the Site's field systems will be enhanced by the planting of hedgerows in the historic field formation of the Site [**M7**]. With respect to non-designated archaeological features/remains, the Heritage Impact Assessment found that these would most likely relate to the historic development of field systems from the Middle Ages onwards, and that any remains identified in the area of the Site to be developed would be '*of no greater than low interest*'. Furthermore, much of the Site's archaeological resource will be left intact and unaffected by the construction of the Proposed Scheme, with those lost having a '*no greater than limited potential to enhance the archaeological record or to enhance our understanding or appreciation of past human activity in this area*'. The Heritage Impact Assessment concluded that the '*small*' impact identified '*could be adequately addressed through the agreement and then implementation of an appropriate programme of investigation and recording, in accordance with a Written Scheme of Investigation (WSI), prior to or during construction*' [**M18**]. Therefore '*There would be no long-term residual impact on non-designated archaeological features, deposits and/or remains*' to be identified within the Site, and so the loss of/disturbance to below ground heritage assets is considered

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			unlikely to be significant.
C3	Change to/loss of setting of built heritage assets	Built heritage assets	Construction works will give rise to short-term and temporary effects to nearby heritage receptors, with the permanent changes resulting from completed built form (during the operational stage) which are considered separately in effect reference **O6**, below. Additionally, temporary fencing/hoarding will be erected around the perimeter of the Site, where necessary [**M1**]. This will help to screen low level construction activities. In addition, the adoption of general site tidiness and sensible layout (which will be defined in the CEMP [**M1**]), would all help to mitigate adverse changes to the setting of the nearby heritage assets. As such, the temporary effects during the construction stage are considered to be short lived and are not considered to be any greater than those arising from the operational stage of the Proposed Scheme (see below) and therefore unlikely to be significant.
C4	Impacts to designated ecological sites as a result of construction activities	Designated ecological sites	As described in **Section 3**, all national/European statutory designated sites are distanced from the Site, with the Ecological Impact Assessment prepared in the support of the Application concluding that the Proposed Scheme '*will not result in any* 'likely significant effects' *or affect the integrity of the conversation value of the designated sites*.' With respect to the four LNRs located within 2km of the Site, these are considered to be sufficiently distanced from construction activities of the Proposed Scheme, e.g. by Birmingham Road (A34) in the case of Merrion Wood LNR to the north, to ensure that any potential contaminated runoff/pollution generated during construction would not impact these designated sites. As set out in the Ecological Impact Assessment, the Site is considered to be designated within the Peakhouse Farm SINC due to the presence of grassland and the established hedgerow network. The grassland field compartments to be removed as a result of the Proposed Scheme, however, were categorised from a site survey as 'semi-improved neutral grassland – species poor' (Fields F6, F7, F8, F13) and 'semi-improved grassland' (F6, F11 and F14), with Fields F6 and F11 having declined in value due to being colonised by bramble scrub and ruderal herbs. '*None of the*

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			grassland habitats present across the Site have been assessed as irreplaceable habitats and all of the grassland present within the site [Site] *has been recorded as been common and spread habitats which can be easily recreated to provide grassland habitats of significant ecological value*.' Overall, the Ecological Impact Assessment concluded that the Proposed Scheme '*will not result in harm to the SINC designation*' and therefore impacts to designated ecological sites as a result of construction activities are not considered to be significant.
C5	Change to/loss of valuable/notable habitat within the Site	Valuable/notable habitat	The Site's network of hedgerows is considered to of high intrinsic (ecological) value. Whilst approximately 3.5% of the Site's hedgerows will require removal to facilitate access between field compartments, these losses will be compensated for with the planting and long-term of management of hedgerows along the former historic field patterns [**M7**]. Similarly, the Ecological Impact Assessment prepared in support of the Application determined that the Site is '*dominated by species-poor grassland and the losses of the areas of the poorest quality will be compensated for though the enhancement of the retained areas of grassland*', by over-seeding with a species-rich meadow mix [**M7**]. Furthermore, habitats surrounding the retained pond/topographical depression and attenuation ponds (to be created) will be enhanced with the planting of wetland/marginal floral species [**M7**]. All mature trees and retained hedgerows will be protected through the implementation of appropriate measures including RPAs and protective fencing in accordance with BS 5837 (2012) Trees in Relation to Design, Demolition and Construction [**M2**]. With the implementation of measures to protect/enhance retained habitats and create new wetland habitats, the change to/loss of valuable/notable habitat within the Site is considered unlikely to be significant.
C6	Direct and indirect	Protected/notable	As set out within **Section 3**, all trees identified with bat roost potential (16 low potential and 5

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
	loss/disturbance to protected species/notable species	species (bats, birds, reptiles, and invertebrates)	moderate potential) are located outside of the north/east of the Site where dwellings are proposed, and so will be retained and protected throughout the construction stage. Should any of these trees require removal at the detailed design stage, these trees will be subject to further climb and inspection techniques prior to removal under the requirement of a Natural England development licence, if required [**M10**]. Furthermore the Ecological Impact Assessment concluded that bat activity and static detector surveys undertaken at the Site '*did not identify any significant evidence of usage by bats*' and the '*Site does not provide a significant resource for the local population*' of bats. Mitigation as part of the Proposed Scheme will also include the provision of a low level lighting scheme (in accordance with ILP Guidance Note 08/18 Bats and Artificial Lighting in the UK to '*avoid light spill onto the areas of green infrastructure*' and so '*further avoid and mitigate any potential effects*' to bats [**M10**]. In order to avoid disturbance to breeding birds, ground and vegetation clearance works will be undertaken outside the bird-breeding season (March to September, inclusive). If this is not possible, the area will be checked prior to removal of vegetation or ground works by an experienced ecologist. Should active nests be found, vegetation will be left untouched and suitably buffered from works until all birds have fledged (under the supervision of an experienced ecologist). With the adopting of these measures, the Ecological Impact Assessment concluded that '*the impact of disturbance during construction to any nesting birds is reduced to negligible*'. Furthermore, a variety of nest boxes will be installed in appropriate locations on proposed dwellings (to be defined at the detailed design stage) to provide additional nesting opportunities. With respect to hedgehogs, no evidence of the species was found during site surveys, however to mitigate harm caused to any individuals, a 10m buffer will be retained around the woodland surrounding the Site and strategically placed holes in proposed garden fencing will enable continued movement of the species through the Proposed Scheme on operation [**M11**].

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			Lastly, as described in **Section 3**, GCNs were confirmed absent from both on-site pond/topographical depression and all those in the vicinity of the Site. Accounting for the above, including identified mitigation, the direct and indirect loss of/disturbance to protected/notable species is considered unlikely to be significant.
C7	Spread of non-native invasive species	The Proposed Scheme/ construction workers	As set out in **Section 2**, a single strand of Japanese Knotweed *Reynoutria japonica* was identified in the north-eastern corner of the Site. To ensure that its presence does not affect the proposed dwellings upon their construction, the species will be removed in line with CIRIA's 'Invasive species management for infrastructure managers and the construction industry (C679)'[37] and undertaken, handled and disposed of by specialist contractors (controlled via the CEMP [**M1**]). Therefore, the spread of non-native invasive species is considered unlikely to be significant.
C8	Release of GHG emissions through embodies carbon, construction activities/plant/ machinery/traffic	Global climate system	The construction of the Proposed Scheme has the potential to release GHG emissions from the use of plant and machinery, construction traffic and the embodied carbon associated with the manufacture of construction materials. The exact likely emissions from construction are unclear without full knowledge of materials, their origins and machinery/plant being used. The emissions can be mitigated through careful sourcing of construction materials to reduce associated GHG emissions as well as the use of direct emission reducing practices on-Site. Such measures will be detailed within the CEMP, which will outline carbon reduction targets/practices to be adopted throughout this stage [**M1**]. Overall, direct and indirect GHG emissions during construction are not clearly understood, though considering the relatively modest scale of the Proposed Scheme and measures to be included in the CEMP, effects are considered unlikely to be significant.
C9	Exposure to on-Site	Construction	As described in **Section 3**, no large areas or thicknesses of Made Ground are anticipated to be

[37] https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C679&Category=BOOK.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
	historic contamination, hazardous materials/vapours and UXO	workers Local community Future users of the Proposed Scheme	encountered on-Site, however it is possible for localised areas of Made Ground to be present where ponds may have been infilled or in the area surrounding the agricultural structures in the northeast of the Site. Intrusive investigations will be undertaken to test soil samples of proposed gardens and areas of public open space, as set out by the Phase 1 Geo-Environmental Report prepared in support of the Application. If necessary, requirements for any remediation prior to construction activities will be confirmed and a remediation strategy [**M4**] will be submitted and agreed with SMBC in advance of any construction works taking place. Furthermore, the principal contractor (when appointed), will identify appropriate safe working standards and methodologies taking account of Construction Design and Management Regulations (CDM) (2015) and Control of Asbestos Regulations 2012 and CIRIA C741 (2015) Environmental Good Practice on Site Guide and C670 (2008) Site Health Handbook, all of which should be included/managed as part of the CEMP [**M1**]. With respect to radon levels, as advised in the Phase 1 Geo-Environmental Report, a specific radon report will clarify the zoning of the area proposed for development and ensure that protective measures (if necessary) are designed for within the proposed dwellings [**M5**]. As a result of the above, whilst the level of specific contamination on-Site is currently unknown, if present, a remediation strategy will remove the contamination prior to construction commencing and standard best practice measures will be implemented, so the effect is unlikely to be significant.
C10	Accidental release and/or migration of contamination arising from construction activities	Construction workers, local community and controlled water bodies (where relevant)	During the construction stage of the Proposed Scheme, there is a potential for spillages (such as oil, fuel, cement, chemicals, etc.) and the generation of suspended solids (through excavations and plant/wheel washing, etc.), leading to the mobilisation of contaminants to construction workers, the local community and to contaminate any boundary ditches/underlying groundwater within/adjacent to the Site boundary. All construction activities will be undertaken in line with Construction Design and Management Regulations (2015) and best practice measures within

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			CIRIA C741 (2015) Environmental Good Practice on Site Guide and C670 (2008) Site Health Handbook and Guidance for Pollution Prevention (GPPs), managed as part of CEMP [**M1**]. These effects can also be controlled through best practice measures, including (where applicable): bunded storage; designated wheel washing areas; settling basins; screening stockpiles of materials; dampening exposed soils as appropriate; and setting out requirements for ongoing monitoring and liaison (with the local community, the Environment Agency and SMBC as appropriate). Such measures will be defined within a CEMP for submission and approval by SMBC in advance of activities commencing on-Site [**M1**]. Therefore, considering the measures above, accidental release of contamination arising from construction activities is considered unlikely to be significant.
C11	Change to landscape character and visual amenity as a result of construction activities/plant/ machinery on-Site	Local Community	During construction, there will be a change in the landscape character and visual context of the Site, as viewed by the nearby residential properties with inter-visibility with the Site and users of Beacon Way LDP/the surrounding road networks. The presence of machinery and plant on-Site and construction activities may be perceived by the local community negatively. However, visual effects with respect to construction activities will be short-term and temporary. It is also noted that there are construction works ongoing in the vicinity of the Site at present. It is envisaged that temporary fencing/hoarding will be erected around the perimeter of the Site, where necessary. This will help to screen (to some extent) low level construction activities. In addition, the adoption of general Site tidiness (which will be defined in the CEMP [**M1**]), would all help to mitigate adverse visual effects. The retained/enhanced boundary vegetation and the implementation of proposed planting/landscaping would also help to reduce the change in visual amenity. Accounting for the temporary/short-term nature of effects and the mitigation measures above changes to visual character and amenity during the construction stage are considered unlikely to be significant.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
C12	Changes to traffic flows on the local road network as a result of construction traffic	Local community	The construction stage of the Proposed Scheme will result in additional vehicular movements on the local road network as a result of the movement of plant/machinery, workers (including subcontractors) and deliveries/collections. It is anticipated that vehicular access to the Site during construction will be taken first from the existing field gate off Wilderness Lane, then the operational site access further east along Wilderness Lane (once constructed). Construction traffic flows of the Proposed Scheme are anticipated to be lower than those reported for the operational stage (effect **O1** below), and therefore AADT all vehicle flows during construction are also not anticipated to exceed the 30% or 'slight' change threshold set by IEMA guidance[38]. Regarding HDV flows, whilst more HDV trips will be generated to and from the Site during construction, traffic control measures and construction access arrangements will be controlled fully within a CEMP or Construction Traffic Management Plan (CTMP) [**M1**], to include the following: • Management and proposed routing of construction related traffic, including details of HGV booking/management systems; • Delivery of large, oversized plant/machinery to the Site should take place outside of peak highway hours (where possible); and • Vehicular parking only within the Site. With the adoption of the identified best practice measures above in conjunction with the expected relatively low levels of construction traffic, effects are considered unlikely to be significant.
C13	Generation of waste during construction and	Local waste treatment/disposal	As described in **Section 2**, the Proposed Scheme will comprise the removal of the existing structures in the north of the Site. All demolition waste will be sorted and segregated on-Site in

[38] IEMA (2023) Environmental Assessment of Traffic and Movement. July 2023.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
	increased pressure/demand on waste facilities	facilities	line with the waste hierarchy. Any hazardous materials (including asbestos), if present, will be removed, handled and disposed of in line with appropriate guidance and regulations[39] [**M1**]. During construction, changes to the existing topography will be required to achieve appropriate development plateau levels. However, an approximate cut and fill balance will be achieved within the Site and no significant import or export of material is considered to be required. A Materials Management plan will be implemented for the earthworks, including importation onto the Site [**M1**]. A Site Waste Management Plan will be developed as part of the CEMP [**M1**] prior to demolition and construction, which will minimise waste arising(s), identify recycling/reuse (including on-Site) opportunities and outline anticipated disposal to relevant waste handling facilities. The plan will be prepared in accordance with relevant standards and guidance (i.e. Controlled Waste (England and Wales) Regulations, 2012). Therefore, the generation of waste during the construction stage is considered unlikely to be significant.
C14	Risk of major accidents or disasters (associated with utility strikes, fire and construction traffic)	Construction workers Local community	The appointed contractor(s) will be required to identify appropriate safe working standards and methodologies taking account of Construction Design and Management Regulations (2015) and other good practice guidance, all of which will be included/managed as part of a CEMP [**M1**]. All utilities will be identified prior to the works and disconnected/made safe where required. The risk of arson is managed at a regional/national level and delivered locally through emergency planning and services/response teams. This aims to reduce the risk as far as possible and allow a safe response to any event. There will be areas for the storage/stockpiling of demolition waste. These areas will be managed appropriately and maintained safely in fenced locations away from sensitive receptors (as part of the CEMP [**M1**]). The potential for major transport accidents will be mitigated by the implementation of traffic

[39] The Hazardous Waste (England and Wales) Regulations 2005 and Control of Asbestos Regulations 2012 and CIRIA C741 (2015).

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			management measures as part of the CEMP or CTMP [**M1**], which will include measures such as a planned route for traffic to reduce the risk to road users, restricting deliveries to certain periods and ensuring the vehicles are well maintained. With the implementation of these measures, effects related to major accidents and/or disasters are considered unlikely to be significant.
Operational Stage			
O1	Changes to traffic flows on the local road network as a result of operational vehicles	Local community	The Proposed Scheme will result in new operational traffic flows to and from the Site as a result of the introduction of new dwellings. Based on the introduction of trips from the occupation of 150 dwellings at the Site, Annual Average Daily Traffic (AADT) flows of all vehicles generated by the Proposed Scheme would result in less than a 30% increase in traffic on all road links surveyed, when compared against baseline traffic data monitored in September 2023. As such, the changes in traffic flows generated by the Proposed Scheme fall below the 30% change threshold that would be indicative of a 'slight' change in all vehicle AADT flows, as defined by IEMA guidance[40]. With respect to HDV flows in isolation, the road links established by the Applicant's Transport Consultant would see no more than 3 HDV trips[41] generated by the Proposed Scheme per day, which would be indicative of no more than a 'slight' change in HDV flows[42] when compared against the 2023 baseline. On this basis, direct effects to users of the local road network, as result of the additional traffic flows generated by the Proposed Scheme, are not considered to be significant. Indirect traffic effects (i.e., changes to air quality and noise) are considered separately below.

[40] IEMA (2023) Environmental Assessment of Traffic and Movement. July 2023.
[41] A total of 3 HDV trips per day would only be observed on Wilderness Lane only (between the Site entrance and its junction with Birmingham Road). All other links would observe 2 HDV trips or fewer.
[42] A 'slight' change in HDV flows would only be experienced on Wilderness Lane (between the Site entrance and its junction with Birmingham Road) and on the section of Birmingham Road between Wilderness Lane and the A34. All other road links would experience a negligible change in HDV traffic flows.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
O2	Changes in pollutant concentration (NO_x, NO_2, and PM_{10}) due to exhaust emissions from traffic generated by the Proposed Scheme	Local community, including existing residents	The Proposed Scheme will result in additional vehicular traffic movements to and from the Site, which in turn have the potential to result in an increase in pollutant concentrations (nitrogen oxides (NO_x), NO_2, and PM_{10}) from exhaust emissions. As described above (effect **O1**), the Proposed Scheme would generate total AADT traffic flows that are below the 'slight' change threshold set by IEMA guidance. As set out in **Section 3**, the existing pollutant concentrations at and in the vicinity of the Site are well below the air quality objective levels. Whilst the additional traffic generated by the Proposed Scheme may increase the overall concentrations on-Site/on the immediate road network, given the existing conditions and the relatively modest scale of the Proposed Scheme, changes in pollutant concentrations are unlikely to cause an exceedance of the current air quality objective levels for England at nearby sensitive receptors. As a result, changes in pollutant concentrations due to exhaust emission from traffic generated by the Proposed Scheme are considered unlikely to be significant.
O3	Exposure of future Site users to existing poor air quality	Future users of the Proposed Scheme	As set out in **Section 3**, despite the Site being located within the Sandwell AQMA, baseline concentrations of NO_2, PM_{10} and $PM_{2.5}$ monitored in the vicinity of the Site are well below their respective AQOs. Accounting for the above, the Air Quality Assessment preparing in support of the Application concluded that '*the Site was considered suitable for the proposed residential use…*', and so the exposure of future Site users to existing poor air quality is deemed unlikely to be the significant.
O4	Release of GHG emissions	Global climatic system	During the operational stage, GHG emissions will be released as a result of energy used for heating and lighting, etc., as well as from vehicle movements to/from the Site. Residential dwellings are required to meet specific standards covered within the Building Regulations (Part L1A) which are focused on the conservation of fuel and power in order to improve dwelling efficiency (and therefore require less energy and generate less indirect GHG emissions). As described in **Section 2**, a range of carbon reduction measures will be considered for the proposed dwellings, including the use of energy efficient boilers or Air Source Heat Pumps, solar

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			photovoltaic (PV) panels and electric vehicle charging points. The measures to be adopted will be determined at the detailed design stage [**M13**]. As set out above, traffic generation from the Proposed Scheme is not expected to result in a substantial change in traffic flows when considered against the baseline scenario. Furthermore, the operational traffic associated with the Proposed Scheme would not necessarily be a new direct source of GHG emissions as a proportion of the future residents will likely be relocating from other areas across SMBC. Therefore, any associated localised increases in GHG emissions would be countered to some extent with reductions elsewhere. The exact GHG emissions from the Proposed Scheme are not clearly understood, nor how these emissions would compare to regional and national carbon budgets. However, given the relatively modest scale of the Proposed Scheme and the measures outlined above, the release of GHG emissions is considered unlikely to be significant.
O5	Impacts of climate change (including overheating of internal spaces) on the Proposed Scheme	Future users of the Proposed Scheme	The impacts of a changing climate on the Proposed Scheme are dealt with by building regulations and the appropriate design of the Proposed Scheme. It is assumed that all buildings will adhere to relevant regulations (including Approved Document O). As such, effects (including overheating) can be appropriately designed out [**M15**]. In addition, the surface water drainage systems will be designed to accommodate runoff arising from a 1 in 100-year rainfall event and a 40% allowance to account for further effects of climate change. Based on the above, effects related to the impacts of climate change on the Proposed Scheme (and its future users) are considered unlikely to be significant.
O6	Change to the setting of built heritage assets	Built heritage assets	As set out in **Section 3**, a total of 4 designated heritage assets (all Grade II listed buildings) are located within the Site's vicinity. The Heritage Impact Assessment prepared in support of the Application confirmed that the Site '*is not considered to form a part of the wider setting of any of these four Grade II listed buildings*' and furthermore '*there would be no harm to their heritage*

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			significance' following the implementation of the Proposed Scheme. With respect to Great Barr Conservation Area and Great Bar Hall RPG (approximately 250m of the Site's junction at Birmingham Road (A34)/Chapel Lane). Whilst the Heritage Impact Assessment confirmed that the western extents of the Conservation Area and RPG are influenced by the northern-most field parcels within the Site, it concluded that '*this contribution would not be reduced by the implementation of the* [Proposed Scheme]' and ultimately, *'there would be no impact from the implementation of the* [Proposed Scheme] *on Great Barr Hall RPG or Conservation Area*'. As a result, the Heritage Impact Assessment concluded that there would be no changes made to the setting of built heritage assets as a result of the operational Proposed Scheme.
O7	Change to landscape character as a result of new built form	Site landscape character	The implementation of the Proposed Scheme will permanently change the land use of the Site from grassland to residential development in its northern/eastern extents (approximately 3.91ha), and to a publicly accessible Countryside Park in its central, western and southern extents (23.09ha). The Landscape & Visual Appraisal and Green Belt Assessment prepared in support of the Application concluded that as the Site forms a very small part of NCA 67 'Cannock Chase and Cank Wood', the Proposed Scheme would result in '*Negligible effects on the overall character area*'. Regarding the landscape character of the Site and its immediate context, the Proposed Scheme would introduce built form to a '*limited portion of the* [Site] *adjacent to the existing settlement edge, where housing is already a strong part of the character*'. Across remainder of the Site (excluding local road networks), the Proposed Scheme will '*retain as far as possible and reinforce the existing field pattern highlighted within the AHHLV designation*' (in the Site's southern extent). This reinforcement will consist of tree and hedgerow planting in the form of historic field patterns, in addition to increasing the diversity of grassland and shrub habitats (all to be managed through the implementation of a comprehensive Landscape

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			Management Plan (LMP) [**M7**]. The Landscape & Visual Appraisal and Green Belt Assessment determined that the maturity of the proposed trees/hedgerows would result in a '*Moderate/Minor Adverse*' effect in the long term, which is to interact with the beneficial effect of green infrastructure provision in the Countryside Park across the remainder of the Site. Overall, the change to landscape character as a result of new built form, accounting for both the introduction of dwellings and the provision of green infrastructure, is considered unlikely to be significant.
O8	Changes to visual amenity as a result of new built form	Local community, including existing residents	The Landscape & Visual Appraisal and Green Belt Assessment prepared in support of the Application found the visual envelope of the Site to be restricted by housing/Merrion's Wood to the north of Birmingham Road (A34); existing dwellings to the east; and vegetation at the southern/western boundaries. Longer-ranging views of the Site (from approximately 700m west) will, however, be made by residents of West Bromwich and Walsall. Regarding the visual amenity of receptors, the Landscape & Visual Appraisal and Green Belt Assessment found that there '*would be some inevitable closer range visual effects for adjacent residents and road users, but these effects would be very localised and not at a high level*'. Views from further afield were deemed to be changed to a lesser extent, with the Proposed Scheme being viewed in the context of the surrounding settlement. Accounting for this appraisal, changes to visual amenity as a result of new built form are considered unlikely to be significant.
O9	Impacts to designated ecological sites during operation	Designated ecological sites	Effects to designated sites during operation relate to the cause of damage or disturbance to species or habitats within them. As set out in **Section 3**, the entire Site is designated as the Peakhouse Farm SINC, due to its established hedgerow network, and to lesser extent, its availability of grassland. However, as indicated in the appraisal of effect **C4**, the Ecological Impact Assessment considered that the Proposed Scheme '*will not result in harm to the SINC designation*'.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			With respect to nearby LNRs, including Merrion Wood (to the north of Birmingham Road (A34)), the Ecological Impact Assessment reported that LNRs '*are designed to provide access to nature within the urban environment designed to provide* [footpaths] *and other suitable recreational resource. Consequently, given the open space provided within the Site and the resources provided within the LNR* [the Proposed Scheme] *is not expected to result in long term effects to the conservation value*' of the LNR. Regarding other LNRs, their conservation statuses were also considered not to be affected, given their geographic separation from the Site. Lastly regarding effects to the Cannock Extension Canal SAC and Fen Pools SAC, the Ecological Impact Assessment found that the Proposed Scheme '*will not result in any* 'likely significant effects' *or affect the integrity of the conversation value of the designated sites*'. Therefore, impacts to designated ecological site during operation are considered unlikely to be significant.
O10	Impacts on habitats and protected/notable species during operation, considering disturbance from vehicles, noise and lighting and the retained/newly created habitats.	On-Site habitats Protected/notable species (bats, badgers, birds, reptiles, and invertebrates)	Notable habitats within the Site include mature trees, grassland and hedgerows. Long-term habitat management plans will be developed and adhered to, in order to maintain the integrity of these habitats. Tree canopies will be thinned as appropriate, approximately 15ha of grassland in the Countryside Park will be overseeded with species-rich meadow mixes and be rotationally cut, whilst hedgerows will be managed to ensure native species diversity. As set out by the Ecological Impact Assessment with regards to protected/notable species, '*a low level lighting scheme avoid light spill onto the areas of green infrastructure surrounding the* [Proposed Scheme] *will further avoid and mitigate any potential effects*' to bat species utilising the Site for foraging and commuting purposes [**M10**]. Suitable habitat for nesting birds and bats will be delivered through the installation of bird/bat boxes to be placed on appropriate trees/dwellings (as appropriate), to benefit a range of species [**M9** and **M10**]. To aid movement of hedgehogs through the Proposed Scheme, holes will also be strategically placed in garden fencing [**M11**].

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			With consideration of the measures above, impacts on habitats and protected/notable species during operation are considered unlikely to be significant.
O11	Disturbance to future users due to noise generated by existing off-Site sources	Future users of the Proposed Scheme (residents)	Noise modelling produced for the Noise Impact Assessment prepared in support of the Application determined that the proposed dwellings located closest to Birmingham Road (A34) would be exposed to free-field noise levels of 64 dB $L_{Aeq,16hr}$ and 63 dB $L_{Aeq,8hr}$ during the daytime and night-time, respectively. Similarly, for those dwellings located nearest to Wilderness Lane, future residents would experience free-field noise levels of 59 dB $L_{Aeq,16hr}$ and 52 dB $L_{Aeq,8hr}$ during the daytime and night-time, respectively. In order for residents of the Proposed Scheme to experience acceptable external noise levels, gardens will be positioned on the screened side of dwellings. Where this is not possible, localised acoustic barriers will remove the line of sight from road traffic and be of a specification to provide a noise reduction of 10dB (to be selected appropriately at the detailed design stage) [**M16**]. To achieve suitable internal noise levels in line with BS 8233, the Noise Impact Assessment reported that standard thermal double glazing would be suitable, with the installation of acoustic trickle ventilators for the worst-affected properties closest to Birmingham Road (A34) and Wilderness Lane [**M16**]. Based on the implementation of the mitigation measures above, the Noise Impact Assessment concluded that '*the site is suitable for residential development*', and as such, the disturbance of future users due to noise generated by existing off-Site sources is considered unlikely to be significant.
O12	Changes to noise environment as a result of traffic generated by	Local community, including existing residents	As set out for effect **O1** above, traffic of the Proposed Scheme is not anticipated to alter the capacity of Wilderness Lane, on which the closest noise sensitive receptors to Site access are located.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
	the Proposed Scheme		Therefore, the volume of traffic generated by the Proposed Scheme is not anticipated to represent a noticeable overall change in road traffic noise levels. Therefore, changes to the noise environment as a result of traffic generated by the Proposed Scheme are considered unlikely to be significant.
O13	Changes to surface water flows and increase in flooding	Local community, including existing residents Future users of the Proposed Scheme	The Proposed Scheme will lead to an increase in the impermeable area in the north/east of the Site, which is currently grassland, and so has the potential to increase surface water flows and flooding. Though as detailed in **Section 2**, the majority of the Site (approximately 23.09ha) will be retained as public open space with landscaped areas and attenuation features. As set out within the Flood Risk Assessment and Drainage Strategy prepared in support of the Application, SuDS including attenuation basins will be incorporated into the surface water drainage network, in accordance with CIRIA 753 – The SuDS Manual[43] where practical, and will be designed to attenuate volumes for a 1 in 100 year storm event with a 40% allowance for climate change[44] [**M12**]. Attenuation basins will be located at the topographical low points of the Site and be fitted with vortex flow controls (e.g. hydrobrakes) to restrict surface water discharge to Qbar (greenfield) rates. Surface water from the proposed attenuation basins will discharge to the existing network of field drains within the Site. Where possible, interception storage will be included as part of the treatment train to manage pollutants at source and so reduce the level of pollution in runoff from the Site. Accounting for the above measures, the Flood Risk Assessment and Drainage Strategy concluded that the Proposed Scheme can operate '*without increasing the flood risk either at the Site or to any third-party land*', and so changes to surface water flows and increase in flood are considered unlikely to be significant.

[43] CIRIA (2015) The SuDS Manual.
[44] PJA (2023) Wilderness Park: Flood Risk Assessment and Drainage Strategy. September 2023.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
O14	Changes to light spill/glare due to operational lighting	Local community, including existing residents Future users of the Proposed Scheme	The proposed dwellings will be located in the north/northeast of the Site, neighbouring existing street lighting along Wilderness Lane and Birmingham Road (A34) and residential dwellings along Peak House Road. The central and western extents of the Site will be public open space. Given this, it is not anticipated that the Proposed Scheme will lead to a notable change to the local lighting environment during operation. Permanent lighting installations will also be in line with guidance/standards[45]. As a result, changes to the local lighting environment due to operational lighting of the Proposed Scheme is considered unlikely to be significant.
O15	Generation of waste during operation and increased demand/pressure on local waste facilities	Local waste treatment/disposal facilities	The residential dwellings proposed will generate waste once completed and occupied/operational. Waste storage areas will be included within the residential area and collection will be provided by SMBC in line with their requirements and practices. Therefore, increased demand on local waste facilities during operation is considered unlikely to be significant.
O16	Risk of major accidents or disasters	Future users of the Site and local community	The probability, frequency and likelihood of natural disasters arising from climatic occurrences (i.e. hurricanes) are considered to be very low due to the natural climatic conditions of the UK within the global climate system. As such, the risk of major accidents and disasters associated with the Proposed Scheme and Site are considered to be limited to the risk of fire, flooding and ground stability. With respect to fire risk, all buildings will be designed and constructed in line with fire preventative measures (i.e. fire doors, smoke detectors/sprinklers, etc.) and all external façades and materials will meet the necessary fire resistance standards set out within Building Regulations Approved Document B and by other relevant legal requirements [**M15**]. Ground stability risks have been covered above (under '*Encountering unstable ground conditions*') which notes that with the consideration of the Site's bedrock geology and with standard guidance in place, the effect is unlikely to be significant.

[45] ILP GN01-2021 Guidance Notes for Reduction of Obtrusive Light; ILP Guidance Note 08/18 Bats and Artificial Lighting in the UK.

Ref	Likely Environmental Effect	Sensitive Receptor	Discussion of Likely Effect and any Requirement for Mitigation
			It is assumed that roads and junctions have been designed in line with best practice measures and standards to reduce the potential for accidents. The Proposed Scheme will also be designed to allow the safe movement of vehicles and people throughout the Site, which will include clear signage and other emergency measures. The risk of flooding has been considered above (under '*Changes to surface water flows and increase in flooding*') and is not considered to be significant, even when accounting for climate change. However, this has also been considered above and mitigation identified that would control the risk of major accident or disaster to an appropriate level. As such, the risk of major accidents or disasters is considered unlikely to be significant.

7. In-Combination Effects

7.1 In line with the methodology set out within **Section 5**, a review of SMBC's, BCC's and WC's planning applications via Landstack and other national portals and identified no projects that met the search criteria. As such, there are no projects which with the Proposed Scheme can cause in-combination effects.

8. Summary

8.1 This report has been prepared in order to obtain a Screening Opinion from SMBC in accordance with Part 2 of the EIA Regulations and to provide all information required to support SMBC in reaching their Screening Opinion, as set out in Regulation 6, Paragraph 2 of the EIA Regulations.

8.2 Regulation 5, Paragraph 5 outlines the required contents of the Screening Opinion, as follows:

"Where a relevant planning authority adopts a screening opinion under regulation 6(6), or the Secretary of State makes a screening direction under regulation 7(5), the authority or the Secretary of State, as the case may be, must-

(a) state the main reasons for their conclusion with reference to the relevant criteria listed in Schedule 3;

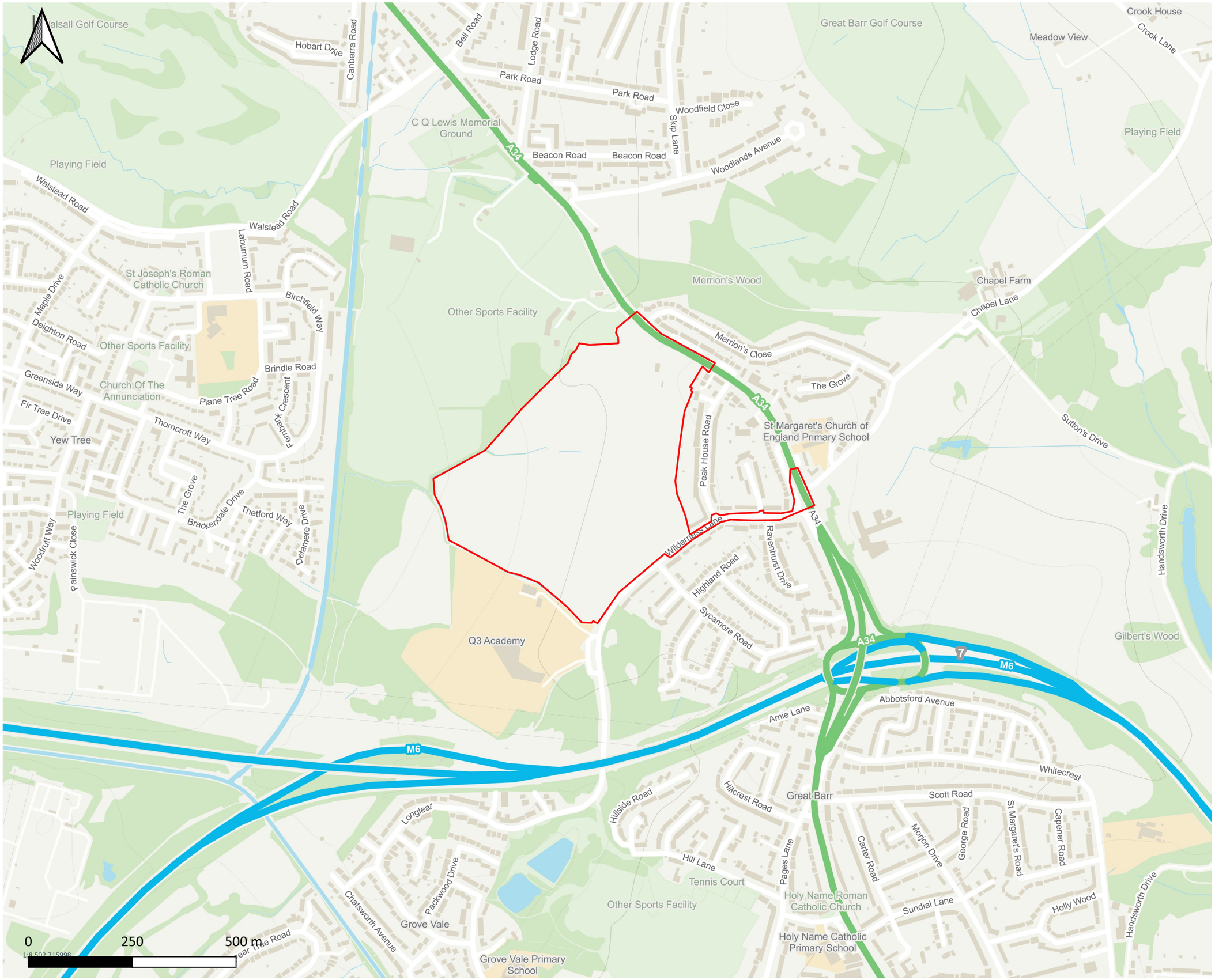
(b) if it is determined that proposed development is not EIA development, state any features of the proposed development and measures envisaged to avoid, or prevent what might otherwise have been, significant adverse effects on the environment; and

(c) send a copy of the opinion or direction to the person who proposes to carry out, or who has carried out, the development in question."

8.3 The characteristics of the Proposed Scheme and the Site and its surrounds have been set out within **Sections 2** and **3** respectively. Both sections have been used to inform the appraisal of likely environmental effects arising from the Proposed Scheme during the construction and operational stages (**Section 6**) in line with the methodology defined within **Section 5**, with specific consideration of mitigation, in line with Regulation 6, Paragraph 2(e) of the EIA Regulations and best practice. In line with the methodology set out within **Section 5**, where mitigation has been considered, this has been clearly defined within **Section 6** and catalogued into a comprehensive Schedule of Mitigation provided as **Appendix 1**.

8.4 A review of SMBC's, BCC's and WC's planning portals via Landstack and other national portals was undertaken in line with selection criteria set out within **Section 5**, and identified no applicable projects. As such, there are no projects which with the Proposed Scheme can cause in-combination effects.

Figure 1: Site Location Plan



EIA Site Boundary

CLIENT:
Wain Estates (Land) Ltd

PROJECT:
Wilderness Park, Land North of Wilderness Lane, Great Barr

DRAWING:
Figure 1

PROJECT NUMBER:
HIMQ3001

DRAWING NUMBER:	CHECKED BY:
GIS_000	ET

REVISION:	STATUS:
1.0	Final

DATE:	SCALE:
October 2023	1:9,000 @ A3

Turley
EIA

Appendix 1: Schedule of Mitigation

Purpose

In line with Regulation 6, Paragraph 2(e) of the EIA Regulations project specific measures to avoid and/or prevent significant adverse environmental effects (i.e. mitigation measures) have been considered when appraising likely environmental effects. The EIA Regulations state that the inclusion of such measures and the extent to which they avoid and/or prevent adverse environmental effects should be considered by the local planning authority when formulating an EIA Screening Opinion.

In order to support the local planning authority, mitigation measures identified within **Section 6** have been collated into a single Schedule of Mitigation, set out below. The aim of the schedule is to provide confidence to the local planning authority that mitigation identified is sufficient to avoid or prevent significant adverse effects and thus validate the determination of likelihood of significant effects as concluded within **Sections 6** and **7**.

It is envisaged that mitigation will be secured by a suitably worded condition(s) to any planning approval, where appropriate, and the Schedule of Mitigation will be utilised by the Applicant and principal contractor to control mitigation commitments and assurance over their implementation.

Approach

The schedule has been compiled using specific mitigation measures identified within **Section 6**.

As detailed within **Section 6,** mitigation reference codes (M1, M2, etc.) have been used to link specific mitigation with the relevant appraisal of likely environment effects.

The following types of mitigation have been considered:

Mitigation Category	Definition of Mitigation
Primary Mitigation	Inherent mitigation, comprising fundamental aspects of the project design
Secondary Mitigation	Foreseeable mitigation, requiring further input and assessment in order to achieve the desired outcome of the assessment
Tertiary Mitigation	Inexorable mitigation, in that it would be compulsory regardless of environmental impact assessment

Schedule of Mitigation

Mitigation Measure	Mitigation Ref.	Responsibility	Applicable Stage (C/O)[46]	Detail of Mitigation
Construction Environmental Management Plan (CEMP)	M1	Appointed Contractor	C	The CEMP should be prepared by the principal contractor in advance of construction works and submitted to SMBC for approval. The document should provide details and principles to avoid and effectively manage potential adverse effects upon the environment. The CEMP should include measures in line with all relevant standards, codes of practice and best practice guidance, inclusive of but not limited to: • The Construction (Design and Management) Regulations; • CIRIA C741 Environmental Good Practice on Site Guide; • CIRIA C670 Site Health Handbook; • Control of Pollution Act 1974; • BS5228 1:2009 'Code of practice for noise and vibration control on construction and open sites'; • ILP GN01-2021 Guidance Notes for Reduction of Obtrusive Light; • ILP Guidance Note 08/18 Bats and Artificial Lighting in the UK; • IAQM Guidance on the Assessment of Dust from Demolition and Construction (2016); • The Waste (England and Wales) Regulations 2011; • CIRIA Report C572: Treated ground engineering properties and performance; • British Research Establishment document FB75: Building on Fill – Geotechnical Aspects; • BS 6031:2009: Code of Practice for Earthworks; • Guidance for Pollution Prevention [GPPs]);

[46] C – Construction, O - Operation

Mitigation Measure	Mitigation Ref.	Responsibility	Applicable Stage (C/O)[46]	Detail of Mitigation
				• The Hazardous Waste (England and Wales) Regulations 2005; and • Control of Asbestos Regulations 2012. Specific to the Proposed Scheme the following measures will be detailed within the CEMP: • Construction working hours would be 08:00 to 18:00 Mondays to Fridays; 08:00 to 13:00 on Saturday; and it is anticipated that there will be no construction on Sundays or Bank Holidays; • A Construction Traffic Management Plan (CTMP) will be prepared by the Principal Contractor in advance of construction works commencing and issued to WBC for approval. The CTMP will set out the following: – Proposed routing for all construction related traffic; – Management of all construction related traffic, including details of HGV Booking/management systems; – Delivery of large oversized plant/machinery to the Site should take place outside of peak highway hours (where possible); and – Construction vehicle parking within the Site only. • A Dust Management Plan (DMP) will be prepared in line with the Institute of Air Quality Management (IAQM)[47]. The DMP will include measures such as: – Providing screening for dust generating activities and covering any material stockpiles; – Implementation of a wheel washing system; and – Regular site inspections and liaison with the local community.

[47] IAQM Guidance on the Assessment of Dust from Demolition and Construction (2023) IAQM. Available at: https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-dust-2023-BG-v6-amendments.pdf [Accessed 18/10/2023].

Mitigation Measure	Mitigation Ref.	Responsibility	Applicable Stage (C/O)[46]	Detail of Mitigation
				• A Soil Management Plan including measures such as: – Details of who is responsible for supervising soil management; – The reuse of soil on-Site where feasible; – Methods for stripping, stockpiling, re-spreading and improving the soils; and – Provision for protecting in-situ subsoils to be retained from compaction damage, and stripping and stockpiling advice to ensure they are available for reuse. • Lighting management: – The use of sufficient lighting units for the task in hand to avoid the need for tall, wide beam lighting units; – The reduction of fixed lighting outside construction working hours; and – Avoiding the excessive illumination of the retained trees and boundary vegetation. • Construction noise and vibration will be controlled through adherence to Best Practicable Means and methods set out in British Standard 5228-1:2009+A1;2014 Part 1 – Noise and Part 2 – Vibration, including as switching off engines whilst stopped on-Site to reduce the impact of noise from construction vehicles to a minimum; • Temporary flood risk measures to be implemented where required to reduce the risk of on-Site flooding from occurring during heavy rainfall/weather events (e.g. the regular maintenance of gullies and drainage systems to prevent debris from causing obstructions); • If unexpected contamination is encountered at any point in construction it will be handled in line with appropriate legislation, standards and guidance;

Mitigation Measure	Mitigation Ref.	Responsibility	Applicable Stage (C/O)[46]	Detail of Mitigation
				• Pollution prevention measures such as bunded storage etc; • To protect nesting birds during construction, any vegetation removal shall avoid bird nesting season (March to August inclusive) or if removal is required during this period a pre-clearance checking survey will be undertaken by a qualified ecologist will be completed; • No work zones will be defined for boundary trees and hedgerows which are to be retained and appropriate fencing will be set up; • Implementation of all necessary groundworks to provide suitable construction platforms in accordance with regulatory standards; • Careful sourcing of construction materials to reduce associated GHG emissions as well as direct emission-reducing practices on-Site; • Good construction site housekeeping; and • Use of fencing / hoarding to visually screen activities.
Tree Protection Strategy	M2	Appointed Contractor	C	All mature trees and retained hedgerows will be protected through the implementation of appropriate measures including Root Protection Areas (RPAs) and protective fencing in accordance with BS 5837 (2012) Trees in Relation to Design, Demolition and Construction.
Intrusive investigations	M3	Appointed Contractor	C	Intrusive investigations will be completed prior to commencement of works to determine the full extent of any contamination and determine the level of any remediation works required. If required, a remediation strategy will be submitted and agreed with SMBC in advance of any construction works taking place.
Earthworks and Foundations Strategy	M4	Appointed Contractor	C	The design and depth of foundations will be determined at the detailed design stage, based on the result of intrusive investigations, which will indicate the presence or absence of fine grained soils and determine the soil volume change potential.

Mitigation Measure	Mitigation Ref.	Responsibility	Applicable Stage (C/O)[46]	Detail of Mitigation
Radon Protection Strategy	M5	Appointed Contractor	C	A detailed radon report will be prepared to clarify the zoning of the areas of the Site proposed for development and specify the protection measures required should areas be above the Action Level.
Foul Drainage Connection Strategy	M6	Appointed Contractor	C	The appropriate foul drainage connection point for the proposed dwellings will be determined at the detailed design stage (either to a connection point beneath Wilderness Lane or Birmingham Road (A34)). A pumping station will be constructed within the Site to facilitate the connection.
Habitat Enhancement Strategy	M7	Appointed Contractor Qualified Ecologist	C/O	Hedgerow/tree losses will be mitigated with compensatory planting to enhance existing field boundaries and to reinstate historic field boundaries within the Site. Existing grassland will be enhanced by overseeding with a species-rich meadow mix and cut on rotation, as appropriate. Habitats surrounding the retained pond/topographical depression and the proposed attenuation ponds will be enhanced with wetland and marginal plant species. Habitats will be managed over the long term via a Landscape Management Plan (LMP).
Invasive Species Removal Strategy	M8	Appointed Contractor Qualified Ecologist	C	The strand of Japanese Knotweed *Reynoutria japonica* identified in the northeast of the Site will be removed in line with CIRIA's 'Invasive species management for infrastructure managers and the construction industry (C679)'[48] and undertaken, handled and disposed of by specialist contractors.
Bird Nesting Strategy	M9	Appointed Contractor Qualified	C	A range of nest boxes will be installed on suitable trees and dwellings within the Site (where appropriate) to provide nesting opportunities for box- and building-nesting birds.

[48] https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C679&Category=BOOK.

Mitigation Measure	Mitigation Ref.	Responsibility	Applicable Stage (C/O)[46]	Detail of Mitigation
		Ecologist		
Bat Strategy	M10	Appointed Contractor Qualified Ecologist	C	Should any of the trees with bat roost potential require removal, they will be subject to further climb and inspection techniques prior to removal under the requirement of a Natural England development licence, if required. A range of bat boxes will be placed on trees in appropriate locations within the Site (to be determined at the detailed design stage), to provide roosting opportunities. A low level lighting scheme will be installed in line with ILP Guidance Note 08/18 Bats and Artificial Lighting in the UK to avoid light spill onto areas of green infrastructure utilised by foraging and commuting bats.
Hedgehog Strategy	M11	Appointed Contractor Qualified Ecologist	O	A 10m buffer will be retained around woodland adjacent to the Site. Holes in proposed garden fencing will be strategically placed to enable unhindered access through the Site by hedgehogs.
Drainage Strategy	M12	Appointed Contractor	O	SuDS including attenuation ponds will be incorporated in line with CIRIA 753 – The SuDS Manual[49]. The Drainage Strategy will be designed to attenuate volumes of surface water produced from a 1 in 100 year storm event, with a 40% allowance for climate change. Attenuation basins will be located at the topographical low points of the Site and be fitted with vortex flow controls to restrict surface water discharge to greenfield rates. Attenuation basins will discharge to the existing network of field drains within the Site.
Energy Strategy	M13	Applicant /	O	The Energy Strategy will be defined at the detailed design stage, when consideration will be

[49] CIRIA (2015) The SuDS Manual.

Mitigation Measure	Mitigation Ref.	Responsibility	Applicable Stage (C/O)[46]	Detail of Mitigation
		Design Team		given to the technologies to be adopted. At the outline design stage, technologies have the potential to include efficient boilers or Air Source Heat Pumps, solar photovoltaic panels and the installation of EV charging points.
Financial contributions	M14	Applicant	O	If deemed necessary, appropriate financial contributions will be paid to SMBC (in line with their policy guidelines) in order to relieve pressure on local education providers and health care providers.
Building Design	M15	Design Team	O	Consideration of overheating through the consideration of existing building regulations set out in Approved Document O. All buildings will be designed and constructed in line with fire preventative measures (i.e. fire doors, smoke detectors/sprinklers, etc.) and all external façades and materials will meet the necessary fire resistance standards set out within Building Regulations Approved Document B and by other relevant legal requirements. The Proposed Scheme will be designed in line with appropriate national guidance and standards with respect to crime prevention and safety. Residential dwellings will be built in line with specific standards covered within the Building Regulations (Part L1A).
Noise Mitigation Strategy	M16	Design Team	O	To achieve internal noise levels in line with BS 8233, standard thermal double glazing will be used on all dwellings with the addition of acoustic trickle ventilators on windows of those dwellings fronting onto Wilderness Lane and Birmingham Road (A34). The detailed specification for each dwelling will be determined at the detailed design stage. To achieve suitable external noise levels, gardens will be positioned on the screened side of dwellings. Where this is not possible, localised acoustic barriers will remove the line of sight from road traffic and of a specification to provide a noise reduction of 10dB (to be selected appropriately at the detailed design stage).

Mitigation Measure	Mitigation Ref.	Responsibility	Applicable Stage (C/O)[46]	Detail of Mitigation
Operational Waste Strategy	M17	Applicant/ Design Team	O	Appropriate waste storage facilities will be provided for the proposed dwellings and refuse collection will be in accordance with SMBC requirements. Such measures are likely to be managed by an approved Waste Strategy, in line with the Controlled Waste (England and Wales) Regulations, 2012 and local guidance.
Archaeology Strategy	M18	Project Archaeologist	C	A Written Scheme of Investigation (WSI) will be prepared and agreed in consultation with SMBC prior to construction, to implement an appropriate programme of archaeological investigation and recording of any identified features of archaeological interest on-site.

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