



**Barratt & David Wilson Homes (BDW)**  
**Land South of Cherryfield Drive, Kirkby**  
**Proposed Residential Development**  
**EIA Scoping Report**

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**Prepared for**  
**Barratt & David Wilson Homes**

**Prepared by**  
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## Document Review

| Rev   | Date       | Prepared By   | Reviewed By   | Approved By   |
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## **1.0 INTRODUCTION**

1.1 Barratt & David Wilson Homes (BDW) (the 'Applicant') is seeking to obtain a hybrid planning permission for residential development, an extra care facility, car parking, new vehicular access, highway improvements and landscaping on land to the South of Cherryfield Drive in Kirkby. The Site is located within the administrative authority of Knowsley Metropolitan Borough Council (KMBC). The Site Location Plan is presented at **Appendix 1.1**.

1.2 Egniol has been instructed by the Applicant to submit an Environmental Impact Assessment (EIA) Scoping Request in respect of the above site to formally determine the scope of the EIA under the provisions of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017<sup>1</sup> as amended<sup>2</sup> (hereafter referred to as the 'EIA Regulations'). The purpose of this report is to inform the request for an EIA Scoping Opinion in respect of the Applicant's proposal (hereafter referred to as the 'Proposed Development').

1.3 The Applicant has undertaken a range of environmental surveys and technical assessments across the Site to inform the design evolution of the Proposed Development. The information obtained to date has been used to inform the scope of the EIA as set out in this Scoping Report.

### **Requirement for EIA**

1.4 The EIA Regulations require that for certain planning applications, an EIA must be undertaken. Schedule 1 of the EIA Regulations lists developments that always require EIA and Schedule 2 of the EIA Regulations list developments that may require EIA if it is considered that they could give rise to significant environmental impacts.

1.5 Regulation 6 of the EIA Regulations makes provision for a developer to request a 'Screening Opinion' from the Local Planning Authority (LPA) to ascertain whether an EIA is required if a development is classed as a Schedule 2 development. This decision is based on the likelihood of significant environmental effects arising in relation to the development proposals. Due to the scale and location of the Proposed Development, it has been assumed for the purposes of the application that a statutory EIA will be required and therefore the Applicant will be undertaking an EIA in respect of the proposals without seeking a Screening Opinion from the Local Authority.

### **EIA Scoping**

1.6 Under Regulation 15 of the 2017 EIA Regulations, a person who is minded to make an EIA application may ask the relevant planning authority to state in writing their opinion as to the information to be provided and subsequently reported in an Environmental Statement (ES) (a 'Scoping Report'). The scoping process is an integral part of undertaking an EIA and its

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<sup>1</sup> HMSO. The Town and Country Planning (Environmental Impact Assessment) Regulations. 2017.

<sup>2</sup> HMSO. The Town and Country Planning and Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2018.

purpose is to provide relevant background information about the Site, the Proposed Development, key environmental issues and the approach for the assessment of potential effects.

1.7 This Scoping Report outlines the Proposed Development and identifies issues that will be assessed by the EIA and reported in the ES that will accompany the planning application. The objectives of the scoping process are to:

- Provide a detailed description of the development, including its physical characteristics and land use requirements.
- Identify key environmental topics that the EIA will consider.
- Define the extent to which environmental topics will be investigated.
- Allow consultation with the LPA, and statutory and non-statutory consultees; and
- Provide a mechanism for agreeing the content and methodology of the EIA with stakeholders at an early stage in the process.

#### **Structure of Report**

1.8 The report is divided into the following sections:

- **Section 1: Introduction**
- **Section 2: Site Context:** This section describes our understanding of the current conditions of the Site and the surrounding area.
- **Section 3: Description of Development:** This section provides a description of the Proposed Development.
- **Section 4: EIA Approach:** This section provides the proposed approach to undertaking the EIA.
- **Section 5: Alternatives:** This section sets out the approach to the alternatives assessment.
- **Section 6 – 9: Environmental Assessment Topics:** These sections outline the proposed methodology for the ES and for each technical assessment expressed as chapters and/or appendices of the ES.
- **Section 10: Non-Significant Issues:** This section sets out those environmental issues deemed to be non-significant for the purposes of EIA and would not be included as a chapter in the ES.
- **Section 11: Structure of the Environmental Statement:** This section defines the proposed structure of the ES, chapters and document formats.
- **Section 12: Summary and Conclusions**

- 1.9 It should be noted that the Scoping Report has been produced using currently available information in relation to the Site and the Proposed Development. However, the design of the Proposed Development is still evolving and will continue to do so throughout the EIA process. This is important as it allows an iterative design process to be followed which takes account of environmental issues and allows for the incorporation of mitigation measures into the proposals. Therefore, changes to the proposals between the scoping of the EIA and the submission of the application should not necessarily require the EIA to be fully re-scoped. The scope presented relates to the general principles of the proposals rather than the specifics; hence the scope can accommodate minor amendments to the Site and the proposals. If the scheme changes materially or if the Site expands significantly in area, it is acknowledged that further scoping may be required.

## **2. SITE CONTEXT**

- 2.1 This section sets out the geographical context of the Site and summarises potential environmental constraints and sensitive receptors in the vicinity.

### **Site Location**

- 2.2 The site consists of 22.5 hectares (55.7 acres) and comprises a mix of brownfield and greenfield land. It is bound by Cherryfield Drive to the North and beyond is Kirkby Town Centre.
- 2.3 The application site north of Cherryfield Drive is bound by main thoroughfares including Hall Lane and the A5208 County Road. The site south of Cherryfield Drive is bound by urban greenspace, Knowsley Community College to the west, a leisure centre to the east, Bewley Drive to the south and 'Valley Hills' located to the southwest of the site backing onto Valley Road. There are existing residential houses off Bewley Drive on Whinberry Drive, Meadowbarn Close and Pondwater Close.
- 2.3 The Site does not contain any buildings of recognised architectural or historic importance and is not located within a Conservation Area. However, Old Hall Lane Conservation Area lies adjacent to the site to the north of Cherryfield Drive and the Grade II Listed Church of St Chad's lies further west.
- 2.3 The site is in a highly sustainable location immediately adjacent to Kirkby Town Centre, which has a wide range of facilities including a shopping centre, market, library and medical facilities.

### **Landscape Context**

- 2.6 The site is not within an area of landscape designation. The western part of the site forms part of the Forestry Commission Woodland Priority Habitat network.

### **Ecology**

- 2.7 There are no European Habitats within close proximity to the site boundary.

### **Hydrology and Hydrogeology**

- 2.8 The site is within flood zone 1. Land to the southwest of the site along Kirkby Brook is within flood Zone 3. This area will be retained as open space and is outside the redline boundary.

### **Access and Traffic**

- 2.9 The site will be accessed via two new accesses from Cherryfield Drive and Bewley Drive.

The roads that are expected to be included in the ES assessment are:

- Cherryfield Drive
- Webster Drive
- A5208 County Road
- Bewley Drive
- A506 Valley Road
- A506 Hall Lane; and
- Kirkby Row

### **Cultural Heritage**

- 2.10 There are no designated heritage assets within the proposed development site. There are 18 listed buildings within a 1km study area, one grade II\* listed and 17 grade II listed. There are also five conservation areas within a 1km study area. In addition to these designated heritage assets, a number of non-designated heritage assets within the study area.

### **Noise**

- 2.11 The baseline noise environment at the Site and in the surrounding area is dominated by road traffic noise, principally from the A506 along the western boundary, with some contribution from the M57 to the south, as well as local roads surrounding the site.

### **Air Quality**

- 2.12 KMBC currently have not declared any Air Quality Management Areas (AQMA). The nearest AQMA to the Application Site is the Liverpool City AQMA, declared by Liverpool City Council for exceedances of the NO<sub>2</sub> annual-mean objective. The Application Site sits approximately 920 m north-east of this AQMA.

### **Site Background and Planning History**

- 2.13 The site has a detailed planning history which includes:
- A previous hybrid (part full / part outline) planning application on the site (LPA Ref: 08/00001/HYB) for a new Everton Stadium (in full) plus new retail (Tesco), leisure, library, hotel, residential, food and drink, offices (in outline) was submitted in 2007 and refused on appeal by the Secretary of State in 2009.

- Outline planning permission (Ref: 10/00505/OUT) was granted in June 2011 for the comprehensive phased redevelopment of the site including a Tesco foodstore, retail, food and drink, professional and financial services, pubs/bars, health centre, library, leisure, petrol station etc. however, this development was never built out.

### **Environmental Constraints and Potentially Sensitive Receptors**

2.14 Features of the Sites and surrounding area may form a constraint to development or be identified as a sensitive receptor that may be affected by the Site. Identifying such constraints and receptors early in the design process ensures that mitigation measures are designed into the proposals progressively from the outset and are fully integrated into the design where appropriate. Details on specific environmental constraints and opportunities found at and around the Site are presented within the technical sections of this document (see Sections 6 to 9). For the purposes of the scoping exercise, these have been identified to include:

- Heritage.
- Transport and Access.
- Air Quality.
- Noise.

### **3. DESCRIPTION OF DEVELOPMENT**

3.1 It is proposed that a hybrid planning application will be submitted. Whilst the majority of the site is proposed in detail and applied for in full, it is also proposed that outline planning permission is sought for an extra care facility and a small element of residential development to the far north eastern corner of the site. It is therefore proposed that a hybrid planning application is submitted to cover both elements. The proposals include:

- Approximately, 720 dwellings, incorporating a mix from both the Barratt and David Wilson Homes brands, incorporating a 10% affordable housing provision in accordance with Core Strategy Policy CS15 that is tenure blind and distributed across the site.
- A mix of 2, 3 and 4 bedroom terraced, semi-detached and detached properties.
- Extracare facility (circa 89 units) which will be a landmark building in the north west part of the site.
- An extension to the existing Cherryfield Drive car park to provide an additional 130 car parking spaces (total – 320 car parking spaces).
- A logical framework of streets and spaces, that link to the surrounding area.
- New vehicular links on both Cherryfield Drive and Bewley Drive.
- Highways improvements to Cherryfield Drive.
- Enlargement and improvement of the large public car park off Cherryfield Drive to serve the town centre uses.
- Perimeter block form, with a clear distinction between the public and private realm.
- Active frontage onto all streets, pedestrian routes and open spaces.
- Integrated movement for pedestrians, cyclists and vehicles, through the site and to the wider area including to the town centre and the existing green space.
- Landscaped green edges with a variety of planting options which enhance biodiversity.
- A clear hierarchy throughout to maximise legibility of movement. This is delivered through the use of primary, secondary and tertiary streets to inform the structure of formal, semi-formal and informal areas in the site.

## 4. EIA APPROACH

- 4.1 This section details the proposed technical areas for assessment within the ES. It sets out the legislative framework, an outline of the intended approach to assessment and the potential effects that have been identified at this stage. Where appropriate and where sufficient information is known, it outlines potential mitigation measures.

### Potentially Significant Issues

- 4.2 The scoping exercise has identified several study areas which have the potential to generate significant environmental effects. Accordingly, the following environmental issues have been 'scoped in' to the EIA for the Proposed Development:

- Heritage
- Transport and Access
- Air Quality
- Noise

- 4.3 Each of these technical assessment areas is discussed in greater detail in Sections 6 – 9 of this Report.

### EIA Approach and Methodology

- 4.4 The ES will be prepared to fully comply with Schedule 4 (Part I and II) of the 2017 EIA Regulations: 'Information for Inclusion in Environmental Statements'; and in accordance with national Planning Practice Guidance (PPG).

- 4.5 The Schedule 4 of the 2017 EIA Regulations state that:

*"4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.*

*5. A description of the likely significant effects of the development on the environment resulting from, inter alia:*

- a) the construction and existence of the development, including, where relevant, demolition works;*

- b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;*
- c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;*
- d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);*
- e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;*
- f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;*
- g) the technologies and the substances used.*

*The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(a) and Directive 2009/147/EC(b)."*

### **Consistency**

4.6 To assist the reader in understanding the technical assessments a consistent approach will be adopted throughout the EIA to ensure that likely significant effects are identified and evaluated in a transparent manner. Each environmental assessment topic will adopt the following approach:

- Baseline Assessment and Identification of the Study Area.
- Identification of Sensitive Receptors.
- Identification of likely significant effects during demolition, construction, and operation of the Proposed Development (including temporary, permanent, indirect, direct, adverse and beneficial).

- Assessment of Effect Significance.
- Mitigation Measures.
- Assessment of Residual Effects; and
- Assessment of Cumulative Effects.

#### **Significance Criteria**

4.7 The assessment of significance will be undertaken for all potential effects to determine their relative importance. The following criteria will be considered when assessing their significance:

- Magnitude (size of effect).
- Spatial extent (size of the area affected).
- Duration (short, medium, or long term).
- Nature of the effect (direct or indirect, reversible, or irreversible).
- Sensitivity of the surrounding environment and receptors.
- Inter-relationship between effects.
- International, national, or local standards; and
- Relevant planning policy.

4.8 Where appropriate and not restricted by the requirements of specific guidance, such is the case with air quality the significance criteria below will be used to categorise predicted effects. Where alternative classifications have been used in order to comply with specific guidance, they will be explained in the methodology sections within each technical assessment. The significance levels identified can be either adverse or beneficial.

4.9 Table 4.1: Significance Criteria

| Significance | Criteria                                                                                                                                                                                                                                                                                                                                                  |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Major        | These impacts are likely to be important considerations at a regional or district scale but, if adverse, are potential concerns to the project, depending upon the relative importance attached to the issue during the decision-making process. Mitigation measures and detailed design work are unlikely to remove all of the impact upon the receptor. |
| Moderate     | These impacts, if adverse, while important at a local scale, are not likely to be key decision-making issues. Nevertheless, the                                                                                                                                                                                                                           |

| Significance | Criteria                                                                                                                                                                                                                                                                                                                                                             |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | cumulative effect of such issues may lead to an increase in the overall effects on a particular area or a particular resource. They represent issues where impacts will be experienced but mitigation measures and detailed design work may ameliorate/enhance some of the consequences upon affected communities or interest. Some residual impact may still arise. |
| Minor        | These effects may be raised as local issues but are unlikely to be of importance in the decision-making process. Nevertheless, they are of relevance in the detailed design of the project and consideration of mitigation measures.                                                                                                                                 |
| Negligible   | Potential impact is beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.                                                                                                                                                                                                                                       |
| No Impact    | No impact is predicted.                                                                                                                                                                                                                                                                                                                                              |

### Mitigation

- 4.10 As set out within paragraph 7 of Schedule 4 of the 2017 EIA Regulations, the EIA will include:

*“A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases”.*

- 4.11 Mitigation is defined as those measures that are required to avoid, remedy, or offset the identified environmental impacts of a project. Those mitigation measures that are identified through the EIA process and which have been designed into the proposals will be considered to be part of the development as ‘embedded mitigation’ for the final assessment as presented in the ES. Embedded mitigation will be described in full in Chapter 5: The Proposed Development. This ‘embedded’ mitigation will be described in each technical chapter where relevant prior to the assessment of potential impacts. It is placed in this order to enable an assessment of the impacts to be made which takes into account the mitigation measures which have been designed into the Proposed Development, i.e. embedded into the design.
- 4.12 Mitigation that is not embedded into the proposals and which requires a commitment from the applicants to carry out further actions will be specified in the ‘Mitigation’ section of each technical chapter and summarised in Chapter 10: Summary of Mitigation and Residual Effects of the ES. These measures would then be secured through the application of

conditions attached to the planning permission or through an appropriate legal framework, such as a Section 106 agreement.

#### **Residual Effects**

- 4.13 Each ES chapter will conclude with a summary of the residual effects of the development once all related mitigation measures have been taken into account.

#### **Cumulative Effects**

- 4.14 In line with Schedule 4 Paragraph 5(e) of the EIA Regulations, an ES must provide a description of the likely significant effects of a project on the environment resulting from:

*“...the culmination of effects with other existing and / or approved projects...”*

- 4.15 Such effects are known as ‘cumulative effects’.
- 4.16 Given that existing development will be considered in the environmental baseline conditions relevant to the Site and the development, and a consideration of the likelihood of significant environmental effects of the development are judged against the relevant environmental baseline conditions, the potential for cumulative effects focuses as a minimum on those Cumulative Schemes with:
- A resolution to grant planning permission.
  - A valid planning permission and yet to start on-site.
  - A valid planning permission and under construction.
- 4.17 Cumulative effects may be divided into two categories as follows:
- Additional impacts arising from interrelationships within the same development; and
  - Those arising from the development in combination with other Proposed Developments.
- 4.18 Most cumulative effects result when construction phases of more than one development overlap. However, the assessment will also assess operational effects of more than one development, where appropriate.
- 4.19 Cumulative effects will be discussed within the chapters, assessing the potential for cumulative effects for each technical assessment, thus ensuring that the LPA can evaluate the impacts of the development in isolation and in conjunction with other developments in the area.
- 4.20 Egniol will undertake a cumulative site search for consented planning applications on the Knowsley Council planning portal which are classed as ‘major developments’. The search area will extend to a 1km radius from the Site boundary. This search criteria is considered robust given the nature of the Proposed Development and its location.

- 4.21 The ES shall consider the potential cumulative effects in combination with the Proposed Development. We would welcome any suggested cumulative sites from Knowsley Council as part of their scoping opinion.

## 5. ALTERNATIVES

- 5.1 A statutory requirement for inclusion in an EIA is the reporting of the consideration of alternatives in the development of a proposal. Schedule 4 of the EIA Regulations states that an EIA is required to provide:

*“A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.”*

- 5.2 Therefore, the ES will define the following types of alternatives considered by the Applicant:

- The ‘do nothing’ alternative: Consideration of the impacts in the absence of the development; and
- Alternative layout and designs: A description of the design evolution based on environmental constraints, potential effects and other considerations, with a description and account of the main reasons why alternative layouts were dismissed and why the preferred design option was selected.

- 5.3 No alternative sites were considered for the development.

## 6. HERITAGE

- 6.1 This section of the ES will present an assessment of the potential significant environment effects of the proposals on the built heritage during both the construction and operational phases. The assessment will be undertaken by Turley Heritage.

### **Site Context and Summary Baseline Information**

- 6.2 There are no designated heritage assets within the proposed development site. There are 18 listed buildings within a 1km study area, one grade II\* listed and 17 grade II listed. There are also five conservation areas within a 1km study area. In addition to these designated heritage assets, a number of non-designated heritage assets within the study area have been identified through consulting the Merseyside Historic Environment Record (August 2022). Knowsley Council are currently in the process of compiling a local heritage list, but this was not available at the time of drafting. All designated and non-designated heritage assets identified within the study area are shown on a Heritage Asset Plan (HAP) at Appendix 6.1.

### **Historic Development**

- 6.3 The proposed development site is located to the south of Kirkby Town Centre and occupies an area of mostly undeveloped land. The proposed development site is bordered to the west by the A506, to the south by Bewley Drive and to the north and east by Cherryfield Drive. At the north east corner of the proposed development site is the Knowsley Community College, Kirkby Campus, which consists of a college building, carparking and playing fields. To the east of the proposed development site is Kirkby Leisure Centre, with associated carparking and football pitches. The character of the area to the south, east and west of the proposed development site is defined by 20<sup>th</sup> and 21<sup>st</sup> century residential development. There is also a smaller residential development on the north side of Bewley Drive. To the north west of the proposed development site is the historic settlement of Kirkby, including the Church of St Chad.
- 6.4 The settlement of Kirkby was founded in the early medieval period, although the town remained largely farmland until the 20<sup>th</sup> century. The historic settlement was distributed along Kirkby Row, from the Church of St Chad in the south east, towards Kirkby Park to the north west. At the time of the first edition Ordnance Survey Map (OS Map) from 1850, the settlement was shown to be low density and surrounded by agricultural land. The proposed development site was largely open agricultural land at this time, although an area of woodland labelled Webster's Pits was located at its centre and a farmstead named Pear Tree Farm was positioned to the south. Historic OS mapping from 1890 indicates the wider area remained agricultural with distributed farmsteads. The Liverpool and Yorkshire Railway was constructed through the settlement of Kirkby in 1848, creating a physical barrier between the north and south of the settlement.

6.5 Kirkby had limited development through the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. However, following extensive bomb damage in Liverpool during the Second World War and a programme of slum clearances within the City through the early 20<sup>th</sup> century, the Liverpool Corporation began a policy of buying land in surrounding areas and relocating industry and communities to the developing overspill estates. Kirkby began to be developed as one of these overspill estates in the 1950s and the area surrounding the proposed development site had seen extensive development by the time of the 1966 OS map. By this time, large housing developments had been erected to the east and west of the proposed development site. A college was constructed to the north of the area, together with a new town centre, replacing the historic Kirkby Hall. Schools for the residential developments were built to the east and south of the proposed development site. Pear Tree Farm, to the south of the site, had been demolished by the mid-1970s and construction of the A506 had begun. The proposed development site appears to have been retained as an open recreational ground during this period.

6.6 During the early 21<sup>st</sup> century the former Pear Tree Farm complex was developed into a small housing estate and a further area of housing was constructed to the south west of Bewley Drive to the south west of the proposed development site. The school buildings to the east were demolished and a leisure centre was constructed in their place. The proposed development site has remained largely undeveloped open land in the 21<sup>st</sup> century.

#### 6.7 **Assessments of Significance**

6.8 The following provides a summary of the significance of designated heritage assets within the 1km study area with the potential to be affected by the proposed scheme. These assets have been identified as most likely to experience significant effects as a result of the development of the proposed development site.

6.9 A number of heritage assets within the 1km study area are unlikely to experience effects arising from the Proposed Development due to the following considerations:

- the nature and extent of their significance (including functional or historic connections);
- lack of visual relationship between the asset and the Proposed Development due to intervening development;
- the orientation of view and the way in which a heritage asset is experienced and the contribution made by setting; and/or
- the existing urban context that characterises their setting and in which the Proposed Development would also be experienced.

- 6.10 The **Church of St Chad** is a grade II\* listed church, designed by architects Paley and Austin between 1869 and 1871 in a transitional Romanesque Gothic style. The building is constructed from coursed red sandstone rubble and has a steeply pitched red tiled roof. It is comprised of an ornately detailed nave with lancet window, aisles, and a clerestory as well as a Romanesque entrance porch to the south aisle. The building also has a short square ended sanctuary, a north and south chapel and a three-stage tower with a saddleback roof and paired lancet windows. The building's interior is decorative and features Henry Holiday stained glass windows and a moulded Norman font. The building is significant as a well-executed church dating to the mid-19<sup>th</sup> century. It also derives significance from its decorative interior and associated with Henry Holiday, a noted artist at the heart of the Arts and Crafts movement.
- 6.11 The Church of St Chad is set within a churchyard that has a degree of seclusion due to extensive tree planting at its borders. Views of the building from Old Hall Lane to the south are filtered. To the east of the church is a small residential development which contains the historic vicarage and stables connected with the vicarage. St Chads Gardens is positioned to the south of the churchyard on the south side of Old Hall Lane. The building is principally experienced from within its own churchyard, where the high-quality design of the building can be appreciated in short range, uninterrupted views. The building is experienced in filtered views from Old Hall Lane and in increasingly filtered views from within St Chads Gardens. The screening effect of the trees blocks the nave from view in middle- and long-distance views, but the tall tower is visible from a greater distance. Only the top stage of the church's tower is visible from Austin Close, despite the close proximity of the church. The church derives significance from its association with surrounding listed buildings, including the Vicarage, Stables, Kirkby Hall Lodge and the War Memorial. The upper stages of the church tower are visible in longer distance views along Valley Road (A506) above the trees of St Chads Gardens, and in glimpsed views from the open ground of the proposed development site itself.
- 6.12 The **Kirkby War Memorial** is grade II listed and is located within the churchyard to the south of the Church of St Chad. The war memorial is an intricately carved cross dating to 1920. The War Memorial draws its principal significance from its communal value to the town of Kirkby and from its intricate design. It also derives significance from its historical association with the Church of St Chad and the concentration of designated heritage assets focused on the church. The War Memorial is principally experienced from within the churchyard of the Church of St Chad, where its intricate carving can be experienced. It is not visible in views from outside of the churchyard, with the exception of filtered views from Old Hall Lane.
- 6.13 The **Vicarage** and **Stables to the North of Vicarage** are grade II listed and are positioned to the east of the Church of St Chad. The list description for both buildings suggests they

were constructed together in 1848. Both buildings are constructed from red sandstone, although the Vicarage has been afforded a higher degree of decoration than the Stables. The Vicarage is two storeys with steep gables and stone mullioned and transomed windows. The building also has pointed arched windows as well as projecting chimney stack with a moulded shield of arms. Both buildings are currently in use as residential properties. The stables appear to have been converted and extended in the 20<sup>th</sup> century. The buildings derive significance from their survival as mid-19<sup>th</sup> century ecclesiastical buildings, from their decorative design that features gothic elements and their group value and association with the Church of St Chad.

- 6.14 Both the Vicarage and Stables are positioned to the west of Austin Close which is accessed from Old Hall Lane. Late 20<sup>th</sup> century residential buildings have been constructed around Austin Close giving it the character of a small private residential development. Due to the modest scale of the listed buildings and the extensive tree planting, especially to the south, the Vicarage and Stables are principally experienced from Austin Close and are not visible from the wider area. The Vicarage and Stables also have an association with the listed **Gate Piers** at the entrance to Austin Close, which were constructed as part of the grounds of the Vicarage.
- 6.15 **Kirkby Hall Lodge** is grade II listed and located within St Chads Gardens to the south of Old Hall Lane. The list description for the building suggests it was constructed in the 1840s. The building would have acted as a lodge for Kirkby Hall, which, although now demolished, was historically located to the east, in the approximate position of the Kirkby Centre and a multi storey car park. The Lodge is now a private home. It is constructed from coursed sandstone and has gothic elements to its design, including stone mullioned windows, moulded stone chimney stacks and ornamental cresting to the roof coping. The Lodge is built into a bank and has a substantial stone plinth at its rear. It derives significance from its survival as a mid-19<sup>th</sup> century lodge building, associated with the now demolished Kirkby Hall, but also with the grouping of listed heritage assets focused on the Church of St Chad. It is also of architectural interest.
- 6.16 Kirkby Hall Lodge is positioned to the west of St Chads Gardens, within a triangular area of land, dictated in shape by the junction between Kirkby Row and Old Hall Lane. The building is principally experienced from within St Chads Gardens, although the mature trees within the gardens and the dense bushes around the lodge reduce its visibility. The building is experienced in filtered views from Old Hall Lane and from Kirkby Row.
- 6.17 **Sefton Cottage** is grade II listed and is located on the north side of Kirkby Row, to the north west of the Church of St Chad. The list description suggests the building was built in the 19<sup>th</sup> century. It is constructed from irregularly coursed red sandstone with ashlar quoins and windows of two, three and four lights. Only the four light window retains its stone mullions.

The principal elevation that faces out onto Kirkby Row has a string course between ground and first floor levels. The building is significant as a surviving element of 19<sup>th</sup> century Kirkby. It also derives limited significance from its design, which is simple but includes some decorative elements such as the ashlar quoins.

6.18 Sefton Cottage is located off Kirkby Row, to the south of the Millbrook Community School and the playing fields associated with the school. The Church of St Chad is located to the east of the building, separated by a wooded area and Kirkby Brook. To the south of the building on the southern side of Kirkby Row is an area of mid-20<sup>th</sup> century residential development. The building is best experienced from Kirkby Row where its principal elevation faces the road. The principal elevation is visible in oblique views looking north west and south east along the road. The building has a high garden wall with mature hedges that obscure views of its rear elevations.

6.19 The **Old Hall Lane Conservation Area** encompasses St Chads Gardens, the buildings around Austin Close, the Church of St Chad and churchyard and a portion of Kirkby Row as far as Sefton Cottage in the west. A conservation area appraisal was produced for the Old Hall Lane Conservation Area in January 2005. The settlement of Kirkby developed in the post medieval period as an agricultural village. In the 18<sup>th</sup> and 19<sup>th</sup> centuries, Kirkby was a small village, distributed along Kirkby Row. The Old Hall Lane Conservation Area is located towards the south east of the historic settlement. The character of the conservation area developed predominately during the 19<sup>th</sup> century. The listed Vicarage, Stables, Gate Piers and Kirkby Hall Lodge were constructed in the mid-19<sup>th</sup> century, ahead of the construction of the current the Church of St Chad. An older, possibly medieval church was demolished when the current church was constructed between 1869 and 1871. Sefton Cottage was also constructed in the 19<sup>th</sup> century. By the end of the 19<sup>th</sup> century, the conservation area had developed to the extent that it is recognisable today. The designated area changed very little through the early 20<sup>th</sup> century, with the main development being the addition of the War Memorial to the churchyard in 1920. However, with the large-scale development of the agricultural land surrounding Kirkby in the mid-20<sup>th</sup> century, the character of the conservation area changed too. Kirkby Hall, to the east of the conservation area was demolished to make way for the Kirkby Centre. This left the Kirkby Hall Lodge isolated and the former open land around the lodge was formalised into St Chads Gardens. In the late 20<sup>th</sup> century, residential buildings were constructed to the north of the Vicarage around Austin Close. The conservation area is characterised by extensive tree planting. It is significant as a surviving element of 19<sup>th</sup> century Kirkby with the Church of St Chad as a focal point.

6.20 The conservation area is positioned to the north west of the modern town centre of Kirkby. To the west and north east of the conservation area are mid-20<sup>th</sup> century residential developments and to the north west is the Millbrook Community Primary School. To the south, the conservation area borders a large two-lane roundabout with the Knowsley

Community College beyond. The extensive mature trees that are planted around and within the conservation area filter views through the conservation area to the listed buildings within its boundaries and reciprocal views out of the designated area. However, when approached from the A506, the conservation area appears as a distinctive wooded area with the upper stages of the church tower appearing above the trees. There are also views into the conservation area from Kirkby Row and Hall Lane, although these views are also heavily filtered by the trees. The tower of the church can be seen from a wider area, including from the proposed development site.

### **Likely Significant Effects**

- 6.21 The following effects have been identified and will be assessed within the EIA and reported in the ES. Their spatial locations are detailed on the HAP at appendix 6.1.

### **Change within the setting of designated heritage assets (construction and operational phases)**

- 6.22 The following designated heritage assets have been identified as potential sensitive receptors for the reasons set out at para 6.8:

- Church of St Chad (grade II\* listed building)
- Kirkby Hall Lodge (grade II listed building)
- Vicarage (grade II listed building)
- Stables to the North of the Vicarage (grade II listed building)
- Gate Piers to South of Vicarage (grade II listed building)
- Kirkby War Memorial (grade II listed building)
- Old Hall Lane Conservation Area

### **Approach and Methodology**

#### **Policy Context**

- 6.23 The assessment will be carried out in accordance with the following built heritage legislation, planning policy and guidance which is of relevance to the site:

- The Planning (Listed Buildings and Conservation Areas) Act 1990
- The National Planning Policy Framework (NPPF, 2021) and relevant local planning policy for the historic environment

- Historic England (2015) Good Practice Advice in Planning Note 2, Managing Significance in Decision Taking in the Historic Environment
- Historic England (2017) Good Practice Advice Note 3: The Setting of Heritage Assets
- Highways England (2020) The 'Design Manual for Roads and Bridges' ((LA 104 Environmental Assessment and Monitoring) and (LA 106 Cultural Heritage Assessment)) ('DMRB')
- IHBC, ClfA & IEMA (2021) Principles of Cultural Heritage Impact Assessment 2021

### **Study Area**

6.24 An initial study area of 1km has been identified. The extent of the Study Area and receptors will be finalised following consultation with the relevant Conservation Officer from Knowsley Council. The consultation will have regard to:

- The nature and scope of the Proposed Scheme
- The proximity of heritage assets to the Proposed Scheme
- The degree of inter-visibility between the heritage assets and the proposed development site taking into consideration, for instance, changes in topography as well as interposing townscape and landscape features
- The significance of the relevant heritage assets and the contribution made by their setting including any historic or functional relationships

6.25 A site visit was undertaken in August 2022 to inform initial assessment work ahead of the formal EIA Scoping.

### **Assessment Methodology and Significance Criteria**

6.26 In the absence of specific prescribed criteria for the assessment of impacts on built heritage, the methodology for establishing the relative value or importance of heritage assets; the magnitude of change; and the significance of effect is drawn from the Highways England Design Manual for Roads and Bridges. The assessment will take into account the findings of the archaeological and landscape and visual assessments to ensure integration of approach and assessment.

6.27 The assessment of likely significant environmental effects will consider both the construction and operational phases.

## Determining Sensitivity of Receptor

- 6.28 The sensitivity of receptors will be considered on a scale of high, medium, low or negligible. The heritage significance (value or importance) of the heritage assets (receptors) is defined on the basis of Table 6.1 which has been informed by the DMRB. This will be undertaken in accordance with Historic England's guidance and informed by documented evidence, site surveys, archival research and professional judgement. There are no heritage assets within the study area that would normally be defined under 'Very High' sensitivity and so this category has not been included.

Table 6.1 Determining the Sensitivity of the Receptor

| Sensitivity | Asset type                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High        | Grade I and II* listed buildings<br>Other listed buildings that can be shown to have exceptional qualities in their fabric or historical association not adequately reflected in the listing grade<br>Grade I and II* registered parks and gardens<br>Conservation areas containing very important buildings                                                                                                    |
| Medium      | Grade II listed buildings<br>Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical association<br>Grade II registered parks and gardens<br>Conservation areas containing important buildings<br>Historic townscape or built-up areas with historic integrity in their buildings, or built settings (e.g. including street furniture and other structures) |
| Low         | 'Locally listed' buildings and landscapes<br>Historic (unlisted) buildings of modest quality in their fabric or historical association<br>Historic townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)                                                                                                       |
| Negligible  | Assets of no architectural or historic note; buildings of an intrusive character                                                                                                                                                                                                                                                                                                                                |

## Determining the Magnitude of Change

- 6.29 The magnitude of change (or impact) to heritage assets will be assessed by applying the criteria outlined in Table 6.2.

Table 6.2: Magnitude of Impact / Change to Heritage Assets

| Magnitude of Impact (Change) | Impact Definition                                                                                                                                                                               |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Major                        | Adverse<br>Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.                                                               |
|                              | Beneficial<br>Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.                                                              |
| Moderate                     | Adverse<br>Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.                                                    |
|                              | Beneficial<br>Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.                                                                          |
| Minor                        | Adverse<br>Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.                         |
|                              | Beneficial<br>Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring. |
| Negligible                   | Adverse<br>Very minor loss or detrimental alteration to one or more characteristics, features or elements.                                                                                      |
|                              | Beneficial<br>Very minor benefit to or positive addition of one or more characteristics, features or elements.                                                                                  |
| No change                    | No loss or alteration of characteristics, features or elements; no observable impact in either direction.                                                                                       |

### Determining the Level of Effect

6.30 The level of effect will be informed by the magnitude of change resulting from the proposed development and evaluation of the sensitivity of the affected receptor. Significant effects will be determined through professional judgment in reference to the DMRB (Table 6.3 below).

Table 6.3 Significance of Effect

| Sensitivity (Heritage Value) of Receptor ▼ | Magnitude of change ► |                   |                    |                   |                     |
|--------------------------------------------|-----------------------|-------------------|--------------------|-------------------|---------------------|
|                                            | No Change             | Negligible        | Minor              | Moderate          | Major               |
| <b>High</b>                                | Neutral               | Slight            | Slight or moderate | Moderate or large | Large or very large |
| <b>Medium</b>                              | Neutral               | Neutral or slight | Slight             | Moderate          | Moderate or large   |
| <b>Low</b>                                 | Neutral               | Neutral or slight | Neutral or slight  | Slight            | Slight or moderate  |

| <b>Negligible</b> | Neutral | Neutral | Neutral or slight | Neutral or slight | Slight |
|-------------------|---------|---------|-------------------|-------------------|--------|
|-------------------|---------|---------|-------------------|-------------------|--------|

- 6.31 The level of effect to heritage assets will be quantified based upon the particular heritage significance and setting of the asset and the nature of the effect on that significance. A full Heritage Assessment will be appended to the ES. This will be prepared in accordance with NPPF Paragraph 194 and relevant Historic England guidance on 'Managing Significance in Decision Taking in the Historic Environment,' and 'The Setting of Heritage Assets.'

### **Determining Significance**

- 6.32 For each effect, a statement will be made as to whether the level of effect is 'Significant' or 'Not Significant.' The determination of which effects are considered significant will be based upon professional judgement, taking into account the heritage interest of the asset, and relevant guidance and legislation where applicable.
- 6.33 The DMRB states that:
- 6.34 "The effect on the cultural heritage resource is not significant when the impact does not substantially diminish the heritage interest of the cultural heritage resource."

### **Limitations and Assumptions**

- 6.35 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- The assessment relies on available data, and best endeavours have been made to ensure that the data are accurate and up to date. It is assumed that information on the Merseyside HER database is accurate.

### **Cumulative Effects**

- 6.36 A separate cumulative effects chapter will be presented in the full ES. This will assess the cumulative impacts of the Proposed Development in conjunction with any committed developments within the vicinity of the Sites identified through the scoping process.

## **7. TRANSPORT AND ACCESS**

- 7.1 The purpose of this chapter is to identify and assess the likely significant effects on the local highway network as a result of the proposed development. The transport and access assessment will be carried out by Mode Transport.

### **Site Context and Summary Baseline Information**

- 7.2 The ES chapter will be informed by the Transport Assessment (TA), which is being submitted as part of the planning application. A Framework Travel Plan (FTP) will also be prepared to support the planning application, which will promote sustainable travel to and from the proposed development and target a reduction in single-occupancy car use.

- 7.3 Traffic data and the exact area of assessment in terms of off-site junction capacity analysis has not been agreed with Knowsley Metropolitan Borough Council (KMBC) Highways at this stage, although the links (receptors) that are expected to be included in the ES assessment are:

- Cherryfield Drive
- Webster Drive
- A5208 County Road
- Bewley Drive
- A506 Valley Road
- A506 Hall Lane; and
- Kirkby Row

### **Likely Significant Effects**

- 7.4 There are a number of environmental effects that can potentially be significant when considering traffic changes in relation to a new development during both the construction and operational phases. These are summarised below and will be considered and analysed for any road links that exceed the IEMA significance criteria for changes in traffic flow volume or composition:

- Severance;
- Driver Delay;
- Pedestrian, Cycle & Public Transport User Delay;
- Pedestrian & Cycle Amenity;
- Fear & Intimidation;

- Accidents & Safety; and,
  - Abnormal/Hazardous load.
- 7.5 The construction of the development is anticipated to utilise standard techniques and accordingly is unlikely to attract abnormal or hazardous load movements and accordingly these are scoped out of any subsequent assessment.
- 7.6 Given the nature of the development it is considered unlikely that abnormal or hazardous load movements will be required during the operational phase and accordingly these are scoped out of any subsequent assessment.

### **Approach and Methodology**

- 7.7 The traffic and transport ES chapter will summarise salient points from the TA and relate the magnitude and significance of potential impacts to criteria contained in the Institute for Environmental Management and Assessment (IEMA) 'Guidelines for the Environmental Assessment of Road Traffic'. This ES chapter will therefore consider the following impacts:
- severance
  - driver delay
  - pedestrian delay
  - pedestrian amenity
  - fear and intimidation
  - accidents and safety
- 7.8 With regards to these effects, the IEMA guidelines states that the following rules should be used as a screening process to delimit the scale and extent of the assessment:
- 7.9 "Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and include any other specifically sensitive areas where traffic flows have increased by 10% or more." (Ref Para 12.10)
- 7.10 The IEMA guidelines (Ref 10.2) go on to state that any increases in traffic flows of less than 10% are generally accepted as having no discernible environmental effects as daily variance in traffic flows can be of equal magnitude.
- 7.11 The 30% threshold relates to the level at which humans may perceive there to be a noticeable change, therefore there may be an effect. A change above this level does not suggest that there is a significant effect, only that further consideration is required to assess the significance.

7.12 Any links (receptors) where daily traffic flow is not expected to increase by more than 30% will be excluded from the ES assessment. Where traffic flows are expected to increase above 30%, these highway links will be carried forward into the ES assessment.

7.13 The magnitude criteria for each impact are detailed in the table below:

| Impact                | Magnitude                                                                            |                                                                                                                                                                |                                                                                            |                                                               |
|-----------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------|
|                       | Very Low                                                                             | Low                                                                                                                                                            | Medium                                                                                     | High                                                          |
| Severance             | Increase in total traffic flows of 29% or under (or increase in HGV flows under 30%) | Increase in total traffic flows of 30-59% or under (or increase in HGV flows under 10-39%)                                                                     | Increase in total traffic flows of 60-89% or under (or increase in HGV flows under 40-89%) | Increase in total traffic flows or HGV flows of 90% and above |
| Pedestrian Delay      | Total traffic flows under 1,400 per hour                                             | Where traffic flows exceed 1,400 vehicles per hour the severity of the impact will be determined on a case-by-case basis based on receptor sensitivity         |                                                                                            |                                                               |
| Pedestrian Amenity    | Increase in total traffic flows of 49% or under                                      | Increase in total traffic flows of 50-69%                                                                                                                      | Increase in total traffic flows of 70-99%                                                  | Increase in total traffic flows of 100% or above              |
| Fear and intimidation | Increase in total traffic flows of 29% or under (or increase in HGV flows under 10%) | Increase in total traffic flows of 30-59% or under (or increase in HGV flows under 10-39%)                                                                     | Increase in total traffic flows of 60-89% or under (or increase in HGV flows under 40-89%) | Increase in total traffic flows or HGV flows of 90% and above |
| Driver delay          | Increase in total traffic flows of 29%                                               | Increase in total traffic flows of 30-59%                                                                                                                      | Increase in total traffic flows of 60-89%                                                  | Increase in total traffic flows or HGV flows of 90% and above |
| Highway safety        | Increase in total traffic flows of 30% or under (or increase in HGV flows under 10%) | All links estimated to experience increases in total traffic flows above 30% or increases in HGV flows above 10% are analysed further in a case-by-case basis. |                                                                                            |                                                               |

7.14 The trip generation for the proposed development is still subject to scoping approval by KMBC Highways; however, once agreed a trip distribution exercise will be undertaken and an assessment of the likely environmental effects will be undertaken based on the data collected and the findings within the TA.

7.15 Once the locations and volumes of the development traffic have been identified it will be necessary to identify those links (receptors) that may be impacted upon, due to the increase in vehicle movements. This will be done by identifying the percentage increase in vehicular activity along key highway links compared to background traffic data.

- 7.16 The highway links (receptors) identified previously will be then to be assigned a sensitivity based on the presence/ number of the following receptors / built environment indicators:

| Receptor                                                                                                                                                      | Sensitivity |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Schools, colleges, playgrounds, hospitals, retirement homes                                                                                                   | High        |
| Congested junctions, shops/ businesses, pedestrian/ cyclists, areas of ecological/ nature conservation value, residential properties close to the carriageway | Moderate    |
| Sites of tourist/ visitor attraction, places of worship, residential areas set back from the highway with screening                                           | Minor       |
| Those people and places located away from the affected highway link                                                                                           | Negligible  |

- 7.17 The significance of the effect on each link based on sensitivity and magnitude of traffic impact can then be established using the table below:

| Sensitivity of receptor | Magnitude               |                              |                              |                              |
|-------------------------|-------------------------|------------------------------|------------------------------|------------------------------|
|                         | High                    | Medium                       | Low                          | Very Low                     |
| High                    | Major - Significant     | Major - Significant          | Moderate - Significant       | Minor – Not Significant      |
| Medium                  | Major - Significant     | Moderate - Significant       | Minor – Not Significant      | Negligible – Not Significant |
| Low                     | Moderate - Significant  | Minor – Not Significant      | Negligible – Not Significant | Negligible – Not Significant |
| Very Low                | Minor – Not Significant | Negligible – Not Significant | Negligible – Not Significant | Negligible – Not Significant |

- 7.18 Any links with significant effects will require mitigation measures to be implemented. Once the mitigation measures have been identified, the residual effect on the link can be determined.
- 7.19 The methodology outlined above will be applied to both the construction and operational phases.

### Cumulative Effects

- 7.20 The assessment of cumulative impacts will be included through application of TEMPRO traffic growth factors which would include the anticipated increases in baseline traffic flows generated by adjacent developments. Committed development flows from recently approved planning applications will also be considered and agreed with KMBC during TA scoping.

- 7.21 Furthermore, given the phased delivery of the development, there is potential for traffic associated with occupation and ongoing construction to affect the local highway network simultaneously. As such, the cumulative impact of operational and construction traffic assessments will be assessed for periods where this occurs.

## 8 AIR QUALITY, DUST AND ODOUR

### Introduction

- 8.1 The air quality assessment will assess the impacts of the proposed development on air quality. The assessment will be undertaken by Air and Acoustic Consultants Ltd.
- 8.2 Air quality changes would occur during construction as a result of the construction activities, associated traffic movements and highway interventions. During occupation, the main changes in air quality would arise as a result of changes to road layouts and traffic flows.
- 8.3 The assessment will focus on air pollutants that are likely to arise from the construction and occupation of the proposed development. These pollutants are oxides of nitrogen (NO<sub>x</sub>), nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>10</sub> & PM<sub>2.5</sub>) and dust.
- 8.4 Where appropriate the assessment will identify proposed mitigation measures to prevent, minimise or control likely negative effects arising from the Proposed Development.

### Site Context and Summary Baseline Information

#### Local Air Quality Monitoring

- 8.5 Under the Air Quality Strategy<sup>3</sup>, there is a duty on all local authorities to consider the air quality within their boundaries and report annually to DEFRA.
- 8.6 Local Air Quality Management (LAQM) has been assessed by the local authority through the National Review and Assessment process and in fulfilment of Part IV of the Environmental Act 1995.
- 8.7 At the time of writing, KMBC<sup>4</sup> currently have not declared any Air Quality Management Areas (AQMAs). To note, the nearest AQMA to the Application Site is the Liverpool City AQMA, declared by Liverpool City Council for exceedances of the NO<sub>2</sub> annual-mean objective. The Application Site sits approximately 920 m north-east of this AQMA.
- 8.8 KMBC have a number of automatic monitoring locations that have recorded concentrations of a range of pollutants, including NO<sub>2</sub>, PM<sub>2.5</sub> and PM<sub>10</sub>. To support the automatic monitoring, KMBC also has an extensive network of non-automatic NO<sub>2</sub> diffusion tubes located across the jurisdiction.

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<sup>3</sup>Department for Environment, Food and Rural Affairs, 1997. The United Kingdom National Air Quality Strategy, Cm 3587.

<sup>4</sup>Knowsley Metropolitan Borough Council, 2020. 2020 Air Quality Annual Status Report (ASR).

- 8.9 Table 8.1 and Table 8.2 set out the NO<sub>2</sub> and PM<sub>10</sub> monitoring data collected for the latest monitoring year of 2019. To note, all the monitors listed in these tables were installed in 2018, making 2019 the first year with available data.

Table 8.1 Summary of NO<sub>2</sub> Annual Mean Air Quality Monitoring

| ID                                                                                      | Type     | Annual mean (µg/m³) |
|-----------------------------------------------------------------------------------------|----------|---------------------|
|                                                                                         |          | 2019                |
| Automatic Monitors                                                                      |          |                     |
| Kirkby (new)                                                                            | Roadside | 24.8                |
| Diffusion Tubes                                                                         |          |                     |
| K1                                                                                      | Roadside | <b>45.4</b>         |
| K2                                                                                      | Roadside | 26.9                |
| K3                                                                                      | Roadside | 25.3                |
| K4                                                                                      | Roadside | 27.1                |
| K5                                                                                      | Roadside | 32.1                |
| K6                                                                                      | Roadside | 35.3                |
| K7                                                                                      | Roadside | 29.6                |
| K8                                                                                      | Roadside | 32.4                |
| K9                                                                                      | Roadside | 29.4                |
| K10                                                                                     | Roadside | 29.4                |
| *Notes: <b>Bold</b> indicates exceedances of the NO <sub>2</sub> annual mean objective. |          |                     |

Table 8.2 Summary of PM<sub>10</sub> Annual Mean Air Quality Monitoring

| ID                                                                                       | Type     | Annual mean (µg/m³) |
|------------------------------------------------------------------------------------------|----------|---------------------|
|                                                                                          |          | 2019                |
| Automatic Monitors                                                                       |          |                     |
| Kirkby (new)                                                                             | Roadside | 37.6                |
| *Notes: <b>Bold</b> indicates exceedances of the PM <sub>10</sub> annual mean objective. |          |                     |

- 8.10 The air quality monitoring carried out closest to the Application Site shows a general compliance of the NO<sub>2</sub> annual mean objective, for the latest year monitoring year of 2019, with an exceedance noted at monitoring location K1. The air quality monitoring carried out closest to the site shows a compliance of the PM<sub>10</sub> annual mean objective, for the latest monitoring year of 2019.

#### Mapped Background Concentrations

- 8.11 The DEFRA website includes estimated background air pollution data for NO<sub>x</sub>, NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> for each 1km-by-1km OS grid square. Background pollutant concentrations are modelled from the base year of 2018 and based on ambient monitoring and meteorological data from 2018 and then projected for future years. Projected pollutant concentrations for 2019 and 2022 covering the closest OS grid square to the Application Site, are provided in Table 8.4.
- 8.12 As per a recent statement from DEFRA, set out below, the DEFRA background concentrations do not consider short term variations as a result of the COVID-19 outbreak in the UK:

*"Users of the updated LAQM tools should be aware that the projections in the 2018 reference year background maps and associated tools are based on assumptions which were current before the Covid-19 outbreak in the UK. In consequence these tools do not reflect short or longer term impacts on emissions in 2020 and beyond resulting from behavioural change during the national or local lockdowns".*

Background calibration factors for NO<sub>2</sub> are set out in Table 8.3. Due to a lack of available urban background monitoring data, it was not possible to calculate background calibration factors for PM<sub>10</sub> and PM<sub>2.5</sub>. The estimated calibrated annual mean background concentrations are then set out in Table 8.4.

Table 8.3: NO<sub>2</sub> Background Calibration Factor

| NO <sub>2</sub>                             | Monitoring Sites |      |      |
|---------------------------------------------|------------------|------|------|
|                                             | H9               | H10  | H11  |
| Measured Concentration (µg/m <sup>3</sup> ) | 26.4             | 23.9 | 28.9 |
| Mapped Concentration (µg/m <sup>3</sup> )   | 19.4             | 19.4 | 23.7 |
| Calibration Factor                          | 1.4              | 1.2  | 1.2  |
| Average Calibration Factor                  | 1.3              |      |      |

Table 8.4: Estimated Annual Mean Background Pollutant Concentrations ( $\mu\text{g}/\text{m}^3$ )

| Pollutant                                                                                      | 2019 | 2022 |
|------------------------------------------------------------------------------------------------|------|------|
| NO <sub>2</sub>                                                                                | 19.4 | 17.1 |
| PM <sub>10</sub>                                                                               | 12.7 | 12.2 |
| PM <sub>2.5</sub>                                                                              | 8.8  | 8.4  |
| Notes: Data presented are derived from the ordnance survey grid reference E: 341500, N: 398500 |      |      |

8.13 Annual mean concentrations are within the relevant objective limits for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>.

### Likely Significant Effects

8.14 There is potential for adverse effects during the construction and operational phases of proposals from the following activities:

- Dust and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) generated by on-site activities during the construction phase;
- Increases in pollutant concentrations as a result of exhaust emissions arising from construction traffic and plant; and
- Increases in pollutant concentrations as a result of exhaust emissions arising from traffic generated by the Proposed Development once occupied.

### Approach and Methodology

8.15 The assessment will include the following studies and elements:

- A qualitative assessment of the potential dust impacts during the construction phase in line with the Institute of Air Quality Management (IAQM) (2016) *Guidance on the assessment of dust from demolition and construction*<sup>5</sup>.
- A quantitative assessment of vehicular emissions during the construction and operational phase(s) in line with the Environmental Protection UK (EPUK) & IAQM (2017) *Land-Use Planning & Development Control: Planning for Air Quality*<sup>6</sup>; and

<sup>5</sup> Institute of Air Quality Management, 2016. *Guidance on the Assessment of Dust from Demolition and Construction*.

<sup>6</sup> Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM), 2017. *Land-use Planning & Development Control: Planning for Air Quality*.

- Identification of mitigation measures for the construction and operational phase(s), where required.

8.16 The IAQM (2016) assessment guidance sets out the following criteria for recommended requirements for the undertaking of a qualitative assessment of dust and emissions associated with the construction phase(s):

- A 'human receptor' within:
  - 350 m of the boundary of the site; or
  - 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s)
- An 'ecological receptor' within:
  - 50 m of the boundary of the site; or
  - 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s).

8.17 It is considered that within these distances that the impacts of dust soiling and increased dust in the ambient air will have the greatest impact on local air quality at sensitive receptors.

#### Traffic Impact on Human Receptors for Construction & Operation Phase

8.18 In terms of locations that are sensitive to pollutants emitted from engine exhausts, these will include places where members of the public are likely to be regularly present over the periods of time prescribed in the AQS. For example, on a footpath where exposure will be transient (for the duration of passage along that path) comparison with a short-term standard (i.e. 15-minute mean or 1 hour mean) may be relevant. At a school or adjacent to a private dwelling, where exposure may be for longer periods, comparison with a long-term standard (such as 24-hour mean or annual mean) may be more appropriate. Box 1.1 of LAQM.TG22<sup>7</sup>, provides examples of the locations where the air quality objectives should/should not apply.

8.19 The EPUK & IAQM (2017) guidance sets out indicative thresholds for undertaking an impact assessment on sensitive human receptors due to the changes in daily vehicular traffic, as a result of a Proposed Development, when the daily traffic movements change by the following:

- A change of Light Duty Vehicles (LDV) flow of:

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<sup>7</sup> Department for Environment, Food & Rural Affairs, 2022. Local Air Quality Management. Technical Guidance (TG22).

- More than 100 Annual Average Daily Traffic (AADT) within or adjacent to an AQMA; or
    - More than 500 AADT elsewhere.
  - A change of Heavy Duty Vehicles (HDVs) flow of:
    - More than 25 AADT within or adjacent to an AQMA; or
    - More than 100 AADT elsewhere
- 8.20 It is considered that below these thresholds the likely effects would be 'insignificant'. A review of the traffic impact data will be used to ascertain the receptor locations based upon the above criteria.

### Assessment Methodology

#### *Construction Phase*

- 8.21 Dust is the generic term used in the British Standard document BS 6069 (Part Two)<sup>8</sup>, to describe particulate matter in the size range 1–75µm (micrometres) in diameter. This document has been withdrawn and has been replaced with the BS ISO 4225:20209 document. Dust nuisance is the result of the perception of the soiling of surfaces by excessive rates of dust deposition.
- 8.22 An assessment of the likely significant effects on local air quality, due to the generation and dispersion of dust, (PM<sub>10</sub>) during the construction phase(s), will be undertaken using the relevant assessment methodology set out in the IAQM (2016). The available information for this phasing of the proposed development will be provided by the Project Team, and based upon professional judgement.
- 8.23 The IAQM (2016) methodology assesses the risk of potential dust and PM<sub>10</sub> impacts from the following four sources;
- Demolition;
  - Earthworks;
  - Construction; and
  - Trackout

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<sup>8</sup> The British Standards Institution, 1994. BS6069-2:1994 - Characterization of air quality.

<sup>9</sup> The British Standards Institution, 2020. BS ISO 4225:2020 - Air quality.

- 8.24 The assessment will consider the nature and scale of the activities undertaken for each of the above sources and the sensitivity of the area to an increase in dust and PM<sub>10</sub> levels, resulting in a risk rating. Risks will be described in terms of there being a low, medium or high risk of dust impacts. Once the level of risk has been ascertained, then site-specific mitigation proportionate to the level of risk will be identified, and the significance of residual effects determined.
- 8.25 Emissions from stationary plant and construction vehicles are also likely to affect local air quality. A qualitative assessment of the likely effects on local air quality will be undertaken using professional judgement and by considering the following:
- The duration of the construction phase and the type of construction activities being undertaken;
  - The distance from the source causing an impact; and
  - The number and type of construction traffic and plant likely to be generated by the construction phase(s).

#### *Operational Phase*

- 8.26 Of the nine pollutants included in the Air Quality Strategy<sup>10</sup> (AQS), the focus will be on changes in concentrations of NO<sub>2</sub> and particulate matter (PM<sub>10</sub> & PM<sub>2.5</sub>) as road traffic is a major source of these pollutants.
- 8.27 The predictions of the likely effects associated with emissions as a result of the Proposed Development, will be undertaken using the dispersion model ADMS-Roads (v 5.0.0.3). The model uses detailed information regarding traffic flows on the local road network, surface roughness, and local meteorological conditions to predict pollutant concentrations at specific receptor locations, as determined by the user.
- 8.28 Meteorological data, such as wind speed and direction, is used by the model to determine pollutant transportation and levels of dilution by the wind. A review of the local meteorological stations indicates Crosby would be the closest meteorological site and most representative of the conditions at the application site.

#### Significance Criteria

##### *Construction Phase for Dust*

- 8.29 The IAQM (2016) guidance does not provide a method for assessing the significance of effects before mitigation and advises that pre-mitigation significance should not be

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<sup>10</sup> Department for Environment, Food and Rural Affairs (July 2007) Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volumes 1 & 2)

determined. It is considered that with appropriate mitigation in place, the IAQM (2016) guidance is clear that the residual effect will normally be 'not significant.'

#### *Construction and Operational Phase for Human Receptors*

- 8.30 Currently there is no formal guidance on the absolute magnitude and significance criteria for the assessment of air quality impacts upon ecological and human receptors. However, the approach provided in the EPUK & IAQM (2017) guidance will be used within this assessment to assist in describing the air quality effects of additional traffic emissions from the operational phase of the Proposed Development.
- 8.31 The guidance recommends that the degree of an impact is described by expressing the magnitude of incremental change in pollution concentration as a proportion of the relevant assessment level, and examining this change in the context of the new total concentration and its relationship with the assessment criterion, as summarised in Table 8.5.

Table 8.5: Impact Descriptors for Individual Receptors

| Long term<br>average<br>Concentration<br>at Receptor in<br>Assessment<br>Year | % Change in concentration relative to Air Quality Assessment Level<br>(AQAL) |            |             |             |             |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------|-------------|-------------|-------------|
|                                                                               | <0.5                                                                         | 1          | 2-5         | 6-10        | >10         |
| 75% or less of AQAL                                                           | Negligible                                                                   | Negligible | Negligible  | Slight      | Moderate    |
| 76-94% of AQAL                                                                | Negligible                                                                   | Negligible | Slight      | Moderate    | Moderate    |
| 95-102% of AQAL                                                               | Negligible                                                                   | Slight     | Moderate    | Moderate    | Substantial |
| 103-109% of AQAL                                                              | Negligible                                                                   | Moderate   | Moderate    | Substantial | Substantial |
| 110% or more of AQAL                                                          | Negligible                                                                   | Moderate   | Substantial | Substantial | Substantial |

- 8.32 The EPUK & IAQM (2017) provides guidance on the severity of an impact as a descriptor. However, although the impacts might be considered 'Slight', 'Moderate' or 'Substantial' at one or more receptor locations, the overall effects of a Proposed Development may not always be judged as being significant. The overall significance should be based on professional judgement, taking into account several factors, including:

- The existing and future air quality in the absence of the proposed development;

- The extent of current and future population exposure to the impacts; and
- The influence and validity of any assumptions adopted when undertaking the prediction of impacts

#### *Temporal Scope*

8.33 The assessment of likely air quality effects due to changes in traffic during construction of the proposed development will be undertaken for the following scenarios:

- 2019 Verification
- Future Baseline (including committed developments); and
- Future Baseline (including committed developments) + Proposed Development.

#### *Limitations & Assumptions*

8.34 In order to reduce the uncertainty associated with predicted concentrations, model verification will be carried out following guidance set out in LAQM.TG(22).

8.35 It has been widely known for some time that NO<sub>x</sub>/NO<sub>2</sub> levels are not reducing as quickly as anticipated and this was identified by Defra in 2011. This was reiterated in an IAQM Interim Position Statement (v1.1)<sup>11</sup> released in July 2018 recognising that emissions from diesel vehicles have not declined as expected by Defra. This document has since been formally withdrawn, stating:

*“There is a growing body of evidence to suggest that the latest COPERT vehicle emission factors, which feed into the EFT (v9 and onwards), reflect the real-world NO<sub>x</sub> emissions more accurately*

*It is judged that an exclusively vehicle emissions-based sensitivity test is no longer necessary*

*On this basis, the EFT may be used for future year modelling with greater confidence when considering the per vehicle emission, provided that the assessment is verified against measurements made in the year 2016 or later”.*

8.36 On this basis it is anticipated the most up to date (EFT) v11.0 could be relied upon to provide a good representation of the air quality concentrations and impacts, and no sensitivity test is therefore required.

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<sup>11</sup> Institute of Air Quality Management, 2018. Dealing with Uncertainty in Vehicle NO<sub>x</sub> Emissions within Air Quality Assessments.

### **Cumulative Effects**

- 8.37 The potential for significant cumulative effects associated with the air quality impacts of other major committed and proposed developments will be assessed, in line with the associated Transport Assessment which will consider the likely effects of the Proposed Development with a wide range of committed developments.

## 9 NOISE & VIBRATION

9.1 The noise and vibration assessment will assess the impacts of the proposed development on existing local noise sensitive receptors. The noise and vibration assessment will be undertaken by Noise Consultants Ltd.

9.2 The ES shall:

- Define the noise and vibration baseline conditions;
  - Identify relevant noise and vibration receptors;
  - Assess:
    - the potential for noise impacts throughout the enabling and construction works and as a result of the completed development;
    - the likely significance of any noise effects;
    - any required mitigation to:
      - avoid likely significant adverse noise effects; and,
      - minimise and reduce any other likely adverse noise effects;
  - the potential for cumulative noise effects.

9.3 The suitability of the site for residential development will be addressed in an Appendix to the ES.

### Site Context and Summary Baseline Information

9.4 DEFRA Strategic Noise Mapping (2017)<sup>i</sup> indicates that the baseline noise environment at the Site and in the surrounding area is dominated by road traffic noise, principally from the A506 along the western boundary, with some contribution from the M57 to the south, as well as local roads surrounding the site.

9.5 Figure 9.1 presents the DEFRA Strategic Noise Mapping<sup>i</sup> results for daytime  $L_{Aeq,16hr}$  noise levels and Figure 9.2 presents the night-time  $L_{Aeq,8hr}$  noise levels.

Figure 9.1: Strategic Noise Mapping: Daytime Road Traffic Noise Levels – dB  $L_{Aeq,16hr}$

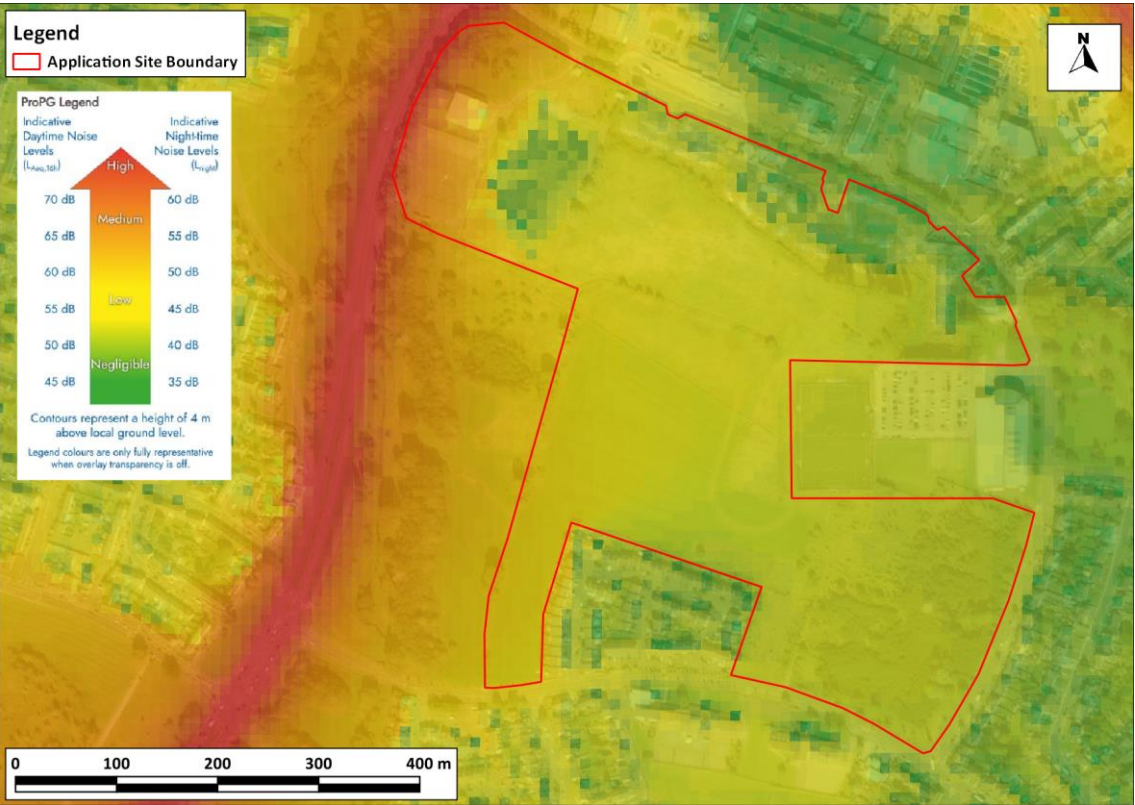
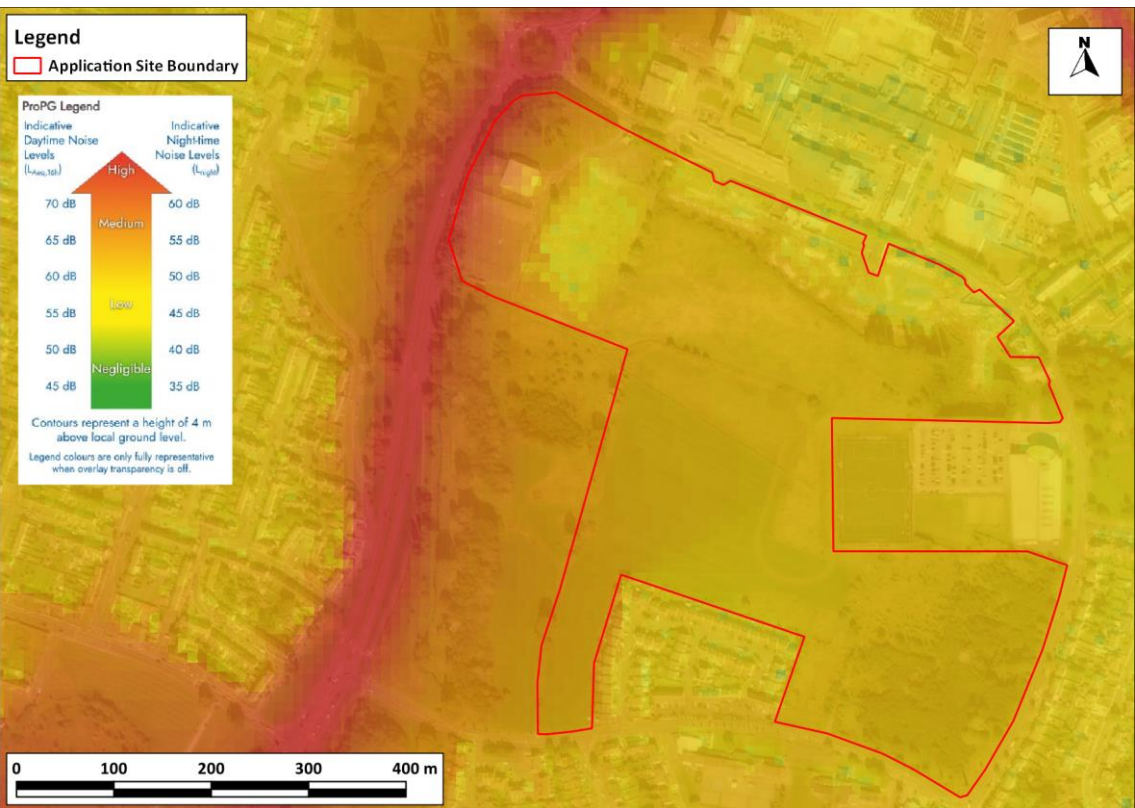


Figure 9.2: Strategic Noise Mapping: Night-time Road Traffic Noise Levels – dB  $L_{Aeq,8hr}$



- 9.6 The site and surrounding areas are expected to be exposed to some noise from the Kirkby Leisure centre to the east and Kirkby Shopping Centre to the north.
- 9.7 Without the Development, future baseline ambient noise levels are likely to experience a gradual increase over time, primarily due to growth in road traffic. On low-speed roads (e.g., <30mph), changes in car technology may partially offset some of the expected noise level increases due to traffic growth. However, noise generated from tyre-road interaction dominates on higher speed roads. Therefore, expected growth in road traffic on major roads (i.e., the A506 and M57) is likely to lead to slight increases in ambient noise levels regardless of changes in technology.
- 9.8 Importantly, the assessment methodology for some aspects of the Development relies upon the quantification of background ( $L_{A90}$ ) sound levels<sup>12</sup>. Background sound levels at existing receptors around the site are not considered likely to experience material change in the future baseline compared to existing.

### **Likely Significant Effects**

- 9.9 The following sources of noise and vibration that have the potential to give rise to Significant Effects during the construction and operational phases of the Development shall be included in the assessment;
- Construction Activity Noise (non-cumulative);
  - Construction Road Traffic Noise;
  - Operational Road Traffic Noise.

### **Approach and Methodology**

- 9.10 The noise assessment will be carried out with reference to the National Planning Policy Framework (NPPF)<sup>ii</sup>, Noise Policy Statement for England (NPSE)<sup>iii</sup>, and Planning Practice Guidance on Noise (PPGN)<sup>iv</sup>.
- 9.11 Where necessary / possible, mitigation measures will be proposed, and embedded into the design, to ensure that adverse residual effects are not significant.
- 9.12 The findings and any recommendations will be provided as an Appendix to the EIA.

### **Study Area**

- 9.13 The study and assessment areas are as follows:

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<sup>12</sup> The A-weighted sound level exceeded for 90% of the measurement period. Often referred to as the background sound level.

- Construction activity noise effects - select key Noise Sensitive Receptors (NSRs) within 300m of the Site boundary, generally consistent with the guidelines set out in the DMRB LA 111<sup>v</sup>.
- Construction and operational road traffic noise effects - the study area for the assessment of road traffic noise will be based on where operational road traffic travelling to and from the Development will increase the road traffic noise levels by 1 dB(A) or more during either the daytime or night-time periods. This is equivalent to approximately 25% increase in traffic volume but will also be determined by changes to the mix of traffic, for example, an increase in the percentage of the volume which comprises HGVs. As such, the extent of the study area cannot be established until traffic data is received.

### Key Noise Sensitive Receptors

9.14 The following NSRs are considered sensitive to potential likely significant effects arising from the Development, and will be included in the assessment, and are as shown in Figure 9.3:

- A sample of existing residential properties around the Site that are expected to be most exposed to construction noise;
- Kirkby House Care Home to the west;
- Kirkby Gallery to the North

**Figure 9.3: Key Noise Sensitive Receptors and Initial Noise Monitoring Locations**



### **Baseline Conditions**

- 9.15 Baseline noise conditions will be established through a detailed noise measurement survey proposed to be carried out in 2022 using fully calibrated instrumentation and undertaken in accordance with BS 7445:2003<sup>vi</sup>. The results will be used to assist in determining the existing baseline noise conditions against which noise from the Development can be assessed.
- 9.16 To obtain a reasonably reliable data set for use in the assessment, and due to the openness of the Site it is anticipated that fully attended measurements will be undertaken at the locations indicated in Figure 9.3, during representative periods of a weekday. The final selection of the baseline measurement locations will depend on a number of local factors, and hence it is not possible at this stage to confirm precise locations.
- 9.17 Where applicable, the results of the noise survey will be used to:
- Establish the existing environmental noise exposure at existing NSRs; and
  - Establish relevant noise level limits at existing NSRs for use in the assessment.
- 9.18 A full description of the baseline noise environment will be provided based on the results of the noise survey.

### **Construction Phase**

- 9.19 The prediction and assessment of significance of noise from construction activities at NSRs will be undertaken as far as reasonably possible (as a detailed construction plan may not be fully developed at the time of the assessment) and be based upon BS 5228-1<sup>vii</sup>. It is expected that the following construction activities will be included;
- Transport Infrastructure;
  - Enabling and Ground Works; and,
  - General Construction Works.
- 9.20 Significance criteria for construction noise will be selected by reference to existing ambient noise levels and the 'ABC' method which is described in Annex E of BS 5228-1.
- 9.21 The noise exposure arising from changes in traffic flows on the existing road network due to construction traffic will be calculated using the methodology set out in CRTN<sup>viii</sup> to derive the Basic Noise Level (BNL) at locations 10m perpendicular from the kerb. This methodology enables a direct comparison to be made of the change in noise level as a result of the Proposed Development associated with particular sections of road.

- 9.22 Significance criteria at the NSRs<sup>13</sup> for construction road traffic noise will be selected by reference to Table 3.17 of DMRB LA 111<sup>v</sup>.

#### **Operational Phase (Completed Development)**

- 9.23 The noise exposure arising from changes in traffic flows on the existing road network due to operational road traffic will again be calculated using the methodology set out in CRTN<sup>viii</sup>.
- 9.24 Significance criteria at the NSRs<sup>14</sup> for operational road traffic noise will be selected by reference to Table 3.49.1 (Effect Levels) Table 3.54a (short-term magnitude of change) and Table 3.54b (long-term magnitude of change) of DMRB LA 111<sup>v</sup>.
- 9.25 Reference will also be made to existing noise levels at NSRs where appropriate, and guidance presented within BS 8233<sup>ix</sup>.

#### **Elements scoped out of the EIA**

- 9.26 Some piling works may be required, but the type, location and duration are not known at this stage. Adherence to appropriate mitigation measures will be set out in a site specific CEMP to ensure that the type of piling is appropriate for the proximity of the works to the nearest key vibration sensitive receptors (VSRs), and therefore can be scoped out of the EIA. The need for a site-specific CEMP can be secured by a suitable worded planning condition.
- 9.27 Roads are assumed to have a well-maintained surface, would not be a significant source of vibration from construction road traffic and can be scoped out of the EIA.
- 9.28 It is expected that the need to secure adequate protection from noise from new items of fixed plant and equipment would be secured by a suitable worded planning condition, pursuant to planning approval to meet sound level rating limits at existing receptors with respect to BS 4142.
- 9.29 Aside from the aforementioned operational road traffic noise, the Development is not considered to generate any other potentially significant sources of operational noise, and therefore all other operational sources of noise can be scoped out of the EIA.
- 9.30 The Development, including road traffic, would not include any significant sources of operational vibration. Therefore, vibration associated with the completed Development can be scoped out of the EIA.

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<sup>13</sup> within 50m from the kerb line of public roads with the potential for an increase in baseline noise level (BNL) of 1 dB(A) or more as a result of the addition of construction traffic to existing traffic levels.

<sup>14</sup> within 50m of road links with potential to experience a short term BNL change of more than 1.0dB(A) as a result of the project.

### **Cumulative Effects**

- 9.31 The noise exposure arising from changes in traffic flows on the existing road network due Construction and Operational phases of the Development and cumulative schemes will be calculated using the methodology set out in CRTN<sup>viii</sup>. and be assessed at NSRs having regard to the principles detailed in DMRB LA 111<sup>v</sup>.
- 9.32 The traffic flow data that will be used for the assessment of cumulative road traffic noise effects will be based on the future scenarios both with and without the Development, with cumulative schemes also included.
- 9.33 The inclusion of traffic generated by the cumulative schemes will ensure that cumulative effects are quantified.
- 9.34 No existing construction sites are present in close proximity to the site, and therefore a cumulative assessment of noise from future construction activities can be scoped out of the EIA.

### **Site Suitability**

- 9.35 Whilst not a requirement of EIA, consideration of the Site's suitability for residential development has included a review of NCL's Site Suitability Indicator (Figures 9.1 and 9.2). This indicates that the site is 'low' to 'high' risk of likely adverse effects from noise, based on guidance presented within Professional Planning Practice Guidance on Planning and Noise (ProPG, 2017).
- 9.36 The SSI is an early indicator of a site's suitability for residential development and indicates that the Development will be required to include noise mitigation as part of its design to appropriately protect future occupants.
- 9.37 The assessment of site suitability will be conducted by reference to noise levels inside properties and noise affecting outside amenity areas (i.e. rear gardens) by reference to;
- ProPG Planning & Noise<sup>x</sup>
  - The AVO Guide<sup>xi</sup>;
  - BS 8233:2014<sup>ix</sup>;
  - Sport England a Design Guidance Note for Sports Pitches<sup>xii</sup>;

## **10 NON-SIGNIFICANT ISSUES**

- 10.1 This section sets out those environmental issues deemed to be insignificant for the purposes of EIA, and as such have been 'scoped out' of the EIA process.

### **Geology, Ground Conditions and Contamination**

- 10.2 Since the Proposed Development will not introduce any new contaminative land uses or activities to the Site, it is not anticipated that the proposed development will give rise to significant contamination risk or effects on the Site. Accordingly, geology, ground conditions and contamination have been scoped-out of the ES.

### **Landscape and Visual**

- 10.3 The site is not located in a sensitive landscape character area. The development is residential in nature in keeping with the surrounding area. Given the sites location and the surrounding topography it is unlikely that would be significant changes to views as a result of the proposals. For these reasons LVIA has been scoped out of the ES.

### **Ecology**

- 10.4 A phase 1 Habitat survey has been undertaken for the site which has not identified any potentially significant issues from an ecological perspective. Therefore, ecology has been scoped out of the ES.

### **Microclimate**

- 10.4 The Application is not anticipated to have a material or significant effect on the wind microclimate or sunlight and daylight of the surrounding properties, and as such has been scoped-out of the ES.

### **Climate change**

- 10.5 The proposals are not of a type of development which will lead to long term impacts on Climate. Climate Change has been scoped out of the ES.

### **Flood Risk**

- 10.6 The site is located in flood zone 1. Therefore flood risk can be scoped out of the ES.

### **Major Accidents and Disasters**

- 10.7 The EIA Regulations require that an ES needs to include a description of the expected effects of the Proposed Development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters that are relevant to the project

concerned. In this case, the nature and scale of the proposed development is not considered to pose risk of major accidents and/or disasters. As such, major accidents and disasters are not proposed to be included as part of this ES.

## **11 STRUCTURE OF THE ENVIRONMENTAL STATEMENT**

### **Volume 1: The Non-Technical Summary**

- 11.1 A Non-Technical Summary (NTS) is required under the EIA Regulations and presents the findings of the ES in a manner suitable for use by non-experts.

### **Volume 2: Environmental Statement**

- 11.2 This Volume will contain the main text of the ES. The proposed topics for consideration and their respective chapter headings are set out below:

- (1) Introduction
- (2) Approach
- (3) Site Description
- (4) Alternatives
- (5) The Proposed Development
- (6) Heritage
- (7) Transport and Access
- (8) Air Quality
- (9) Noise
- (10) Summary of Mitigation and Residual Effects
- (11) Cumulative Impacts

### **Volume 3: Appendices**

- 11.3 This volume will contain supporting information and a collection of technical reports upon which the conclusions of the ES are based.

## 12 SUMMARY AND CONCLUSIONS

12.1 This Scoping Report has been prepared to support a formal request to Knowsley Council for a Scoping Opinion under the EIA Regulations regarding the scope of the EIA and the likely content of the ES which will accompany the Application.

12.2 We would welcome feedback on the proposed approach to the EIA and would be grateful if Knowsley Council would respond by way of a formal Scoping Opinion within the requisite 5 weeks in accordance with Regulation 15(4) of the EIA Regulations. If the Local Planning Authority require any additional information in order to make a decision, please do not hesitate to contact Egniol.

### Contacts

For further information regarding the EIA, see Table 3 for the relevant contacts at Egniol.

| Name                    | Role                                   | Address                                                             | Contact                                                                                                             |
|-------------------------|----------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Richard Kevan           | Director                               | LLlys Onnen,<br>Ffordd Y Llyn,<br>Parc Menai,<br>Bangor LL57<br>4DF | Email: <a href="mailto:richard.kevan@egniol.com">richard.kevan@egniol.com</a><br>Mobile: 07841 843 056              |
| Helena Gimeno<br>Hyland | Graduate<br>Environmental<br>Scientist | LLlys Onnen,<br>Ffordd Y Llyn,<br>Parc Menai,<br>Bangor LL57<br>4DF | Email:<br><a href="mailto:helena.gimenohyland@egniol.com">helena.gimenohyland@egniol.com</a><br>Mobile: 07733328702 |

## **Appendix 1.1 – Site Location Plan**

## Site Boundary



Plans, layouts and landscaping are not intended to form part of any contract or warranty unless specifically incorporated in writing into the contract.

The name of this development is a marketing name only and may not be the designated postal address, which may be determined by The Post Office.

**St Chads  
Health Centre**



**Municipal services site**



**Proposed Cinema**



**Proposed  
car park  
extension**

ma  
junction  
access onto  
Drive

**Webster Drive**

# Webster Park

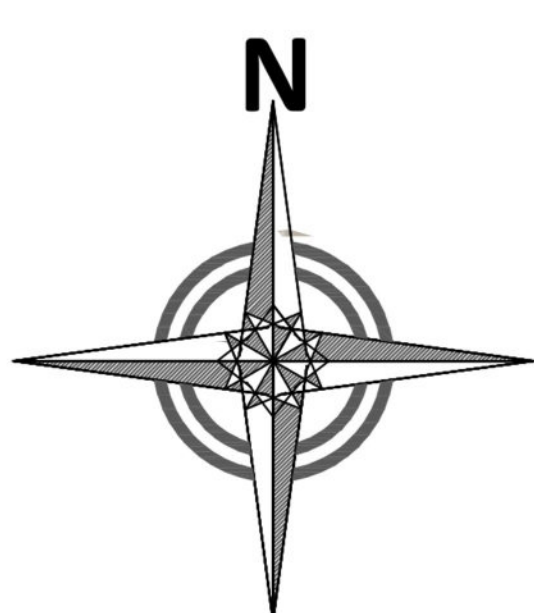
## Valley Meadows improvements

A506



**Bewley Drive**

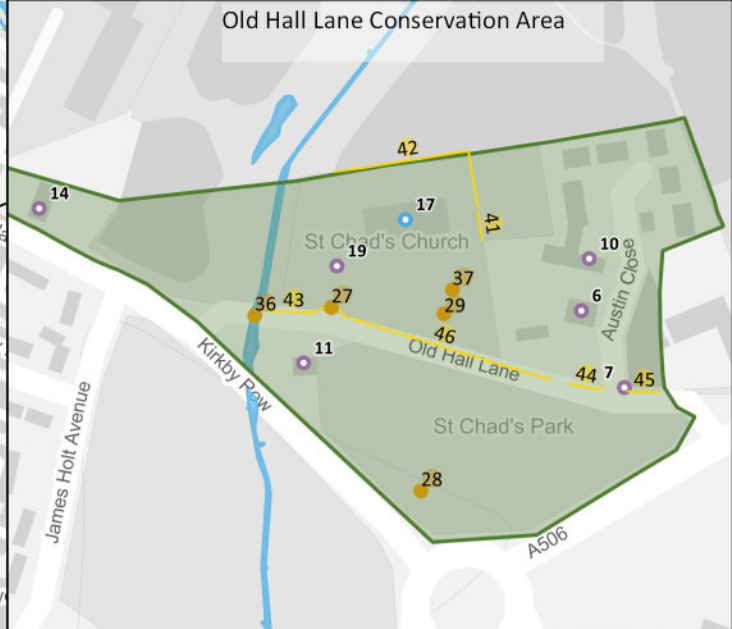
St Joseph the Worker  
RC School



### Scale Bar



## **Appendix 6.1 – Heritage Asset Plan**



| Ref | Listed Building                               | Grade |
|-----|-----------------------------------------------|-------|
| 1   | The Railway Public House And Langtree Cottage | II    |
| 2   | The Cottage                                   | II    |
| 3   | Carters Arms Public House                     | II    |
| 4   | Pigeon House And Whitefield House             | II    |
| 5   | 112, Ingoe Lane                               | II    |
| 6   | Vicarage                                      | II    |
| 7   | Gate Piers To South Of The Vicarage           | II    |
| 8   | Sefton Arms Cottages                          | II    |
| 9   | Waverley House (kirkby Conservative Club)     | II    |
| 10  | Stables To North Of The Vicarage              | II    |
| 11  | Kirkby Hall Lodge                             | II    |
| 12  | 14 And 16, South Park Road                    | II    |
| 13  | Dovecote                                      | II    |
| 14  | Sefton Cottage                                | II    |
| 15  | 1 And 3, Mill Lane                            | II    |
| 16  | Lytham House                                  | II    |
| 17  | Church Of St Chad                             | II*   |
| 18  | 121 And 123, Ribbler's Lane                   | II    |
| 19  | Kirkby War Memorial                           | II    |

| Ref | HER Building                                                             |
|-----|--------------------------------------------------------------------------|
| 20  | Nos. 1 and 2 Ingoe Lane, Kirkby                                          |
| 21  | Nos. 1 and 2 Oxtan Close, Kirkby                                         |
| 22  | Nos. 3 and 4 Oxtan Close, Kirkby                                         |
| 23  | Croxteth House, Ingoe Lane, Kirkby                                       |
| 24  | Roman Catholic church of St Joseph the Worker, Bewley Drive, Kirkby      |
| 25  | Beasley's Bridge, County Road, Kirkby                                    |
| 26  | Railway bridge over Mill Brook, Boyes Brow, Kirkby                       |
| 27  | Wall to St Chad's churchyard and former vicarage, Old Hall Lane, Kirkby. |
| 28  | The Weeping Stone, St Chad's Gardens, Kirkby Row, Kirkby                 |
| 29  | Sundial, St Chad's churchyard, Old Hall Lane, Kirkby                     |
| 30  | Alder's Bridge, Moor Lane, Kirkby                                        |
| 31  | Nos. 1 and 2 Tithe Barn Cottages, Valley Road, Kirkby                    |
| 32  | Burton's Farm, Burton's Way, Kirkby                                      |
| 33  | Little Brook Cottages, Nos. 1-3 Little Brook Lane, Kirkby                |
| 34  | Little Brook Bridge, Little Bridge Lane, Kirkby                          |
| 35  | Burton's Bridge, Burton's Way, Kirkby                                    |
| 36  | Kirkby Bridge, Old Hall Lane, Kirkby                                     |
| 37  | Cross in St Chad's Churchyard, Old Hall Lane, Kirkby                     |
| 38  | Mill Bridge, Boyes Brow, Kirkby                                          |
| 39  | No. 143 Bewley Drive, Kirkby                                             |
| 40  | Ruff Cottage, Daleside Road, Kirkby                                      |

| Ref | HER Walls                                                                |
|-----|--------------------------------------------------------------------------|
| 41  | Rear wall of St Chad's churchyard, Old Hall Lane, Kirkby                 |
| 42  | Rear wall of St Chad's churchyard, Old Hall Lane, Kirkby                 |
| 43  | Wall to St Chad's churchyard and former vicarage, Old Hall Lane, Kirkby. |
| 44  | Wall to St Chad's churchyard and former vicarage, Old Hall Lane, Kirkby. |
| 45  | Wall to St Chad's churchyard and former vicarage, Old Hall Lane, Kirkby. |
| 46  | Wall to St Chad's churchyard and former vicarage, Old Hall Lane, Kirkby. |

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- Site Boundary
- Study Area
- Listed Buildings
- I
- II\*
- II
- Conservation Area
- HER Buildings
- HER Walls

CLIENT:

Barratt & David Wilson Homes North West

PROJECT:

Cherryfield Drive, Kirkby

DRAWING:

Heritage Asset Plan

PROJECT NUMBER:

BARH3035

DRAWING NUMBER:

GIS\_100

CHECKED BY:

KM

REVISION:

1.0

STATUS:

Final

DATE:

August 2022

SCALE:

1:11,000 @ A3

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<sup>i</sup> DEFRA Strategic Noise Maps, 2017, retrieved from <https://ssi.noiseconsultants.co.uk/> 25 August 2022

<sup>ii</sup> Ministry of Housing, Communities & Local Government (March 2012, updated July 2021) 'National Planning Policy Framework'.

<sup>iii</sup> Department for Food and Rural Affairs (Defra) (January 2015) 'Noise Policy Statement for England (NPSE)'.

<sup>iv</sup> Ministry of Housing, Communities & Local Government (March 2014, updated July 2019) 'Planning Practice Guidance – Noise'.

<sup>v</sup> Design Manual for Roads and Bridges (DMRB). LA 111: Noise and Vibration. May 2020.

<sup>vi</sup> British Standard BS 7445:2003 – Description and Measurement of Environmental Noise Part 1.

<sup>vii</sup> British Standard BS 5228-1:2009+A1:2014 'Code of construction practice for noise and vibration control on construction and open sites. Part 1: Noise'.

<sup>viii</sup> Department of Transport's 'Calculation of Road Traffic Noise' (CRTN, 1988

<sup>ix</sup> British Standard BS 8233:2014 'Guidance on sound insulation and noise reduction for buildings'.

<sup>x</sup> 'Professional Practice Guidance on Planning & Noise' (ProPG, 2017),

<sup>xi</sup> 'Acoustics, Ventilation and Overheating: Residential Design Guide'

<sup>xii</sup> Sport England's Artificial Grass Pitch (AGP) Acoustics - Planning Implications (2015)