

5. The Proposed Development

Introduction

- 5.1 Schedule 4, Part 1 of the 2017 EIA Regulations outlines the information that should be provided within an ES. This chapter includes a 'Description of the Development', including in particular:

- (a) "A description of the location of the development;*
- (b) A description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land use requirements during the construction and operational phases;*
- (c) A description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;*
- (d) An estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases)."*

- 5.2 This chapter and the accompanying figures define the study area, the maximum quantum of development proposed, the means of access and describes the proposed development in line with Schedule 4 of the EIA Regulations.

- 5.3 The information presented in this chapter alongside the plans submitted for approval form the basis of the EIA and provides the level of detail required to enable the assessment of environmental effects for an application of this nature in line with the 2017 EIA Regulations.

Description of Development

- 5.4 The planning application seeks full planning permission for the construction of a residential development comprising of 781 dwellings with a combination of 1-4-bedroom properties, bungalows, apartments, highway infrastructure and

landscaping.

- 5.5 The key elements of the Proposed Development sought for approval as part of the planning application is as follows:

Full Planning Permission sought for:

- 781 energy efficient new homes incorporating a mix of Barratt David Wilson Homes brands.
- 78 Affordable homes and 12 bungalows.
- A mix of 1-4 bedroom terraced, semi-detached, detached properties, bungalows and apartments.
- An extension to the existing Cherryfield Drive Carpark providing an additional 60 car parking spaces.
- Sensitive boundary treatments, low walls and hedges and a minimum privacy distance in compliance with adopted separation distances.
- Highways improvements to Cherryfield Drive and road access links on both Cherryfield Drive and Bewley Drive including resurfacing of the roads and pavements and clear safe routes for pedestrians and cyclists and easy access to the town centre through a series of walkable, easily accessible landscaped green links running across the site
- Associated open space, landscaping, highways and other infrastructure.

- 5.7 Details of the proposed development are described in the following sections. Further supporting information is provided in the accompanying Design and Access Statement (DAS) submitted with the planning application.

Application Description

- 5.8 The proposed development is defined on the planning application forms as:

'Residential development comprising of 781 no. dwellings, bungalows, together with landscaping, infrastructure and other associated works including an extension to existing Cherryfield Drive car park to provide an additional 60 no. spaces (250 total) and new vehicular accesses to Cherryfield Drive and Bewley Drive, Kirkby'

5.9 As detailed in Chapter 2: Approach, the assessment parameters include the detailed plans submitted for approval, along with the written description of the Proposed Development, allow the likely significant effects of the proposals to be fully assessed and appropriate mitigation measures secured. Table 5.1 below includes the list of drawings that have been prepared and are submitted for approval with the planning application and have been used as a basis for the assessment of environmental effects. These drawings are included in **Volume 2: Figures** of the ES

Table 5.1 List of drawings submitted for approval:

Drawing Reference	Drawing Title
NW23-28	Existing Survey
NW23-43	Demolition Plan
	Cherryfield Drive Overall Planning Layout Colour Rev N
H9305-DWH-XX-XX-DR-UD-201001	DWH Cherryfield Location Plan – Rev P01
H9305-DWH-XX-XX-DR-UD-203001	Cherryfield Drive Overall Planning Layout – Rev N
H9305-DWH-XX-XX-DR-UD-203002	DWH Cherryfield Drive Planning Layout – Rev N
HXXXX-BAH-XX-XX-DR-UD-203001-P16	Planning Layout (Sheet 2 of 3)
HXXXX-BAH-XX-XX-DR-UD-203002-P16 –	Planning Layout (Sheet 3 of 3)
H9305-DWH-XX-XX-DR-UD-203003	Overall Cherryfield Drive Brand Split Plan
H9305-DWH-XX-XX-DR-UD-203150	DWH Cherryfield Drive Materials Layout – Rev D
HXXXX-BAH-XX-XX-DR-UD-203150-P01	Materials Layout (Sheet 2 of 3)
HXXXX-BAH-XX-XX-DR-UD-203151-P01	Materials Layout (Sheet 3 of 3)
H9305-DWH-XX-XX-DR-UD-203200	DWH Cherryfield Drive Hard Landscaping – Rev B
HXXXX-BAH-XX-XX-DR-UD-203200-P01	Hard Landscaping Layout (Sheet 2 of 3)
HXXXX-BAH-XX-XX-DR-UD-203201-P01	Hard Landscaping Layout (Sheet 3 of 3)
H9305-DWH-XX-XX-DR-UD-203250	DWH Cherryfield Drive Boundary Treatment Plan Rev B
HXXXX-BAH-XX-XX-DR-UD-203250-P01	Boundary Treatment Layout (Sheet 2 of 3)
HXXXX-BAH-XX-XX-DR-UD-203251-P01	Boundary Treatment Layout (Sheet 3 of 3)
H9305-DWH-XX-XX-DR-UD-203400	DWH Cherryfield Drive Affordable Plan – Rev C
HXXXX-BAH-XX-XX-DR-UD-203400-P01	Affordable Housing Layout (Sheet 2 of 3)
HXXXX-BAH-XX-XX-DR-UD-203401-P01	Affordable Housing Layout (Sheet 3 of 3)
H9305-DWH-XX-XX-DR-UD-203450	DWH Cherryfield Drive Storey Heights Plan – Rev B
HXXXX-BAH-XX-XX-DR-UD-203850-P01	Storey Heights Layout (Sheet 2 of 3)
HXXXX-BAH-XX-XX-DR-UD-203851-P01	Storey Heights Layout (Sheet 3 of 3)

H9305-DWH-XX-XX-DR-UD-203500	DWH Cherryfield Drive Refuse Layout Plan – Rev B
HXXXX-BAH-XX-XX-DR-UD-203500-P01	Refuse Strategy Layout (Sheet 2 of 3)
HXXXX-BAH-XX-XX-DR-UD-203501-P01	Refuse Strategy Layout (Sheet 3 of 3)
H9305-DWH-XX-XX-DR-UD-203550	DWH Cherryfield Drive Street Scenes Rev B
H9305-DWH-XX-XX-DR-CS-021100	DWH Cherryfield Drive Electric Vehicle Charging Point Plan – Rev D
HXXXX-BAH-XX-XX-DR-UD-021100-P01	Electric Vehicle Charging Point Layout (Sheet 2 of 3)
HXXXX-BAH-XX-XX-DR-UD-021101-P01	Electric Vehicle Charging Point Layout (Sheet 3 of 3)
HXXXX-BAH-XX-XX-DR-UD-203550-P01	Street Scenes 01
	Cherryfield Drive- DWH- House Type Pack
	Cherryfield Drive – Barratt – House Type Pack
GL1859 01D	Infrastructure – Soft Landscape Proposals (Sheet 1 of 5)
GL1859 02D	Infrastructure – Soft Landscape Proposals (Sheet 2 of 5)
GL1859 03D	Infrastructure – Soft Landscape Proposals (Sheet 3 of 5)
GL1859 04D	Infrastructure – Soft Landscape Proposals (Sheet 4 of 5)
GL1859 05D	Infrastructure – Soft Landscape Proposals (Sheet 5 of 5)
GL1859 06B	– Phase 1 – Soft Landscape Proposals (Sheet 1 of 3)
GL1859 07B	Phase 1 – Soft Landscape Proposals (Sheet 2 of 3)
GL1859 08B	Phase 1 – Soft Landscape Proposals (Sheet 3 of 3)
7778-SK04-1_C	Drainage Levels Strategy Street 1 of 4
7778-SK04-2_C	Drainage Levels Strategy Street 2 of 4
7778-SK04-3_C	Drainage Levels Strategy Street 3 of 4
7778-SK04-4_C	Drainage Levels Strategy Street 4 of 4

Quantum of Development

5.10 The planning application seeks full planning consent for the land use and amount set out in Table 5.2.

Table 5.2: Schedule of Residential Accommodation

Use	Quantum
Residential Housing; Including 2,3 and 4 beds housing, bungalows and apartments	781
Affordable housing	78 (included in total properties)
Bungalows	12 (included in total properties)

5.11 The following sections describe the detailed plans and schedule of accommodation.

Use, Amount and Operation of the Development

5.12 The Proposed Development includes a residential led development comprising a series of residential homes and bungalows across an irregularly shaped a c. 23.07ha site. As set out previously, the planning application is submitted as a full planning application, seeking planning permission for the construction of a residential led development, including the landscaping, infrastructure and associated work including an extension to the existing car park to a total of 250 spaces. A mix of bungalows (1 storey), 2, 2.5 and 3 storey dwellings are proposed.

Phasing of Development

5.13 The development of the site will be carried out in a series of phases based over a c.10 year build out. Due to a lack of information, the overall effects within this ES are presented assuming simultaneous build out to represent a 'worst case' scenario for assessment purposes.

Demolition

5.14 The majority of the Site is vacant and undeveloped, the Knowsley Community College as well as some smaller buildings in the northwest of the Site will be demolished. See figure NW-23-43.

Landscaping, Green Infrastructure and Acoustic

- 5.14 A comprehensive landscaping strategy has been prepared by Barratt & David Wilson Homes Ref: Overall Coloured layout Rev N. This comprises a detailed landscape strategy and layout for the detailed application area. This includes tree lined streets and designated SUDs. Tree planting and landscaping works will be undertaken on the site to integrate and enhance the green infrastructure provision on site.

Application Area

- 5.15 The overall layout is provided at Figure H9305-DWH-XX-XX-DR-UD-203001. The elements of the layout have been driven by the need to deliver a residential-led approach for the proposed development. This has been informed by the development team, and specifically the ecologist to maximise biodiversity gains, green space urban living in a park life environment and surface flood water management through high quality landscaping. A range of measures are proposed including (but not limited to):

- SUDs;
- Green Spaces available for all including dogwalkers;
- Links to green space;
- Highway access; and
- Trees and Ecology.

- 5.16 The landscaping creates an activated blue and green infrastructure throughout the site. This creates green edges and tree lined streets along the main and sub movement networks with integrated SUDs within the proposed residential application area.

Landscaped / Acoustic Mitigation

- 5.17 The proposed residential development layout will be constructed to optimise distance between the source and noise-sensitive receptors to minimise noise transmission using natural screens and other buildings. The development has also included sensitive boundary treatment and separation distances designed with careful consideration for existing properties and businesses bound by the development, meeting all interface standards. This will include low walls and hedges around properties with existing residences.

Surface Water

- 5.19 It is proposed to discharge surface water flows direct to the watercourse (Kirkby Brook) located along the western portion of the site. Due to the size of the development it is proposed to split the drainage networks into separate outfalls. This will help keep reduce the depths of the gravity drainage networks and will spread the flows / attenuation throughout the development. Surface water flow rates will be restricted to QBAR 6.1 litres / second / hectare. The applicant is proposing 3 networks discharging to the watercourse. Network 1 will discharge to the north west at a flow rate of 40 l/s and Network 2 will discharge to the south west at a flow rate of 72.5 l/s. A third network with a discharge to the surface water public sewers within Cherryfield Drive to the south east of the site. This has been discussed with United Utilities and a flow rate of 25 l/s has been agreed. Attenuation will be provided within networks of on-line pipes and SUDS components.
- 5.20 The surface water drainage system provides storage for up to a 100-year storm event with a 10% allowance for urban creep and a 45% allowance for climate change. The entire surface water network consisting of pipes, manholes, SUDS features, and flow controls will be offered United Utilities for adoption via a S104 Agreement and therefore will be maintained by United Utilities.

Foul Water

- 5.21 United Utilities have responded to a wastewater pre-development enquiry and have confirmed all foul flows from the development can drain to public foul / combined sewer system. Due to site topography and size of the development it is proposed to drain the site via six separate gravity networks with points of connection within the Cherryfield Drive and Bewley Drive foul sewers.
- 5.22 The entire foul network consisting of pipes and manholes will be offered United Utilities for adoption via a S104 Agreement and therefore will be maintained by United Utilities.

Construction

- 5.23 Precise construction methodologies will only be finalised once a contractor is appointed. It is expected that the appointed contractor and its sub-contractors will at all times apply the principle of Best Practicable Means. The construction phase will be supported with a Construction Environment Management Plan (CEMP) which will be agreed with Knowsley Council prior to construction. The purpose of which sets out developer plans to avoid, minimise or mitigate effects on the surrounding environment and local residents living closely to the site.

Construction Programme and Enabling Works

- 5.24 The anticipated construction programme is as follows:
- Start on site – 2024.
 - Full site completion by 2033.
- 5.25 It is anticipated the first phase of development will begin with the demolition and remediation commencing summer 2024 with a build period of approximately 7-10 years to completion of the development. The sites construction delivery will be confirmed through the provision of a phasing plan which will be conditioned as a part of the planning permission.

Vegetation and Tree Clearance

- 5.26 Vegetation clearance will be required to facilitate development as tree clearance will be required to facilitate construction of the proposed residential buildings. Clearance will be conducted outside of the bird breeding season (March to August inclusive), where possible. Should this not be possible, pre-clearance checks will be undertaken prior to vegetation clearance. Any updated ecological surveys and any licensing procedures would also be undertaken.

Construction Hours of Work

- 5.27 Working hours will be subject to agreement with KMBC. However, it has been assumed that standard working hours during construction would be followed.

These are presented below:

- Monday to Friday: 08:00 - 18:00;
- Saturday: 08:00 - 13:00; and
- No working on Sundays or Bank Holidays.

5.28 No other work is permitted outside the times presented above without the written permission of the Local Planning Authority (LPA).

5.29 Where works unavoidably need to take place outside the core working hours, occupiers of nearby residential properties shall be informed by the contractor in advance of the works and their likely duration.

Construction Environmental Management Plan

5.30 A Construction and Environmental Management Plan ("CEMP") will be prepared prior to commencing works on site. This document outlines the methods which will be employed by contractors to manage and where practical minimise the impact of the development's construction activities upon the site and surrounding area. The Plan demonstrates a commitment to achieving high environmental standards and compliance with considerate contractor scheme procedures. The Plan includes best practice measures and those mitigation measures identified through the EIA process. In summary, it will comprise the following:

- Construction Method Statement Incl. Machinery and Equipment.
- Proposed Working Hours.
- Segregation and recycling of waste (waste management).
- Control of vibration, air, light, & noise pollution.
- Control of air/water pollution including measures for the prevention of pollution to nearby watercourses.
- Prevention of nuisance from temporary lighting & vibration.
- Access to and from site & construction traffic routes including parking of site operatives and visitors' vehicles and Fencing.
- Deliveries & unloading.
- Provision of on-site parking facilities.

- Safe storage of fuel/hazardous liquids on site.
- Prevention of mud/debris being deposited on the highway.
- Use of timber from sustainable/recycled sources.
- Storage of materials & heavy plant on site.
- Supplier Procurement.
- Monitoring/control of water usage.
- Monitoring/control of energy consumption.
- Signage Strategy.
- Access by Emergency Vehicles.
- Ecological Appraisal.
- Complaints/ review Procedure.

5.31 Table 5.4 sets out the procedures and mitigation measures that have been identified in the technical assessments and the CEMP. These reflect the mitigation measures identified in the technical chapters of the ES and it is recommended reference be made to specific requirements of each.

Table 5.4: Construction Effects and Mitigation

Potential Effect	Activity and Effect	Procedures and Mitigation Measures
Visual intrusion	Construction activity, lighting, and vehicle movements	• No storage of materials will be permitted outside the site boundary. • Temporary lighting required for security purposes during hours of darkness is to be designed to illuminate into the site and not to create any nuisance to neighbouring properties or highways. • The temporary lighting will be positioned at the site entrance, to the compound, within the building as it is constructed and enclosed, and to access routes at stages throughout the programme • Whenever possible temporary lighting will be turned off when not required.
Traffic	Adverse traffic conditions caused by construction traffic	• CEMP including; • Construction Travel Plan. • Agreed vehicle routing plan. • Agreed hours of construction operation. • Details of wheel washing facilities. • Details of road sweeping / cleaning.

Potential Effect	Activity and Effect	Procedures and Mitigation Measures
		- A manned Gatehouse will be situated at the site entrance so in coming traffic can be controlled and directed onto to site and/or to the site compound parking area and traffic leaving can be checked for cleanliness. - All vehicles will be parked within the site boundary at all times on a carpark area.
Air Emissions and Dust	Emissions from vehicles	- Vehicles must be regularly serviced - Minimise movement of construction vehicles around the site - Impose a site speed limit
	Dust	- Cutting, grinding and sawing will not be conducted on-site and pre-fabricated material and modules will be brought in where possible; - Where cutting, grinding and sawing takes place, water suppression will be used to reduce the amount of dust generated; - Skips, chutes and conveyors will be completely covered and, if necessary enclosed to ensure that dust does not escape; - No burning of any materials will be permitted on site; - Any excess material will be reused or recycled on-site where practicable in accordance with appropriate legislation; - The Principal Contractor will produce a waste or recycling plan; - Following earthworks, exposed areas and soil stockpiles will be re-vegetated to stabilise surfaces, or otherwise covered with hessian or mulches; - Stockpiles will be stored in enclosed or bunded containers or silos and kept damp where necessary; - Hard surfaces will be used for haul routes where possible; - Haul routes will be swept/washed regularly; - Vehicle wheels will be washed on leaving the Site; - All vehicles carrying dusty materials will be securely covered; and - Delivery areas, stockpiles and particularly dusty items of construction plant will be kept as far away from neighbouring properties as possible.

Potential Effect	Activity and Effect	Procedures and Mitigation Measures
Noise and Vibration	Construction process	• Integration of noise control into the preparation of method statements, including, where necessary, the use of effective silencers; • Proactive links between noise management activities and community relations activities; • Preparation of details of site hoardings, screens or bunds that will be put in place to provide acoustic screening during construction, together with an inspection and maintenance schedule for such features; • Preparation of risk assessments to inform structural surveys of buildings and structures that may be affected by vibration from construction; • Development of a noise and vibration monitoring protocol, including a schedule of noise and vibration monitoring locations and stages during relevant demolition and construction activities of the Development when monitoring will be undertaken; • The undertaking and publication of all monitoring required to ensure compliance with all acoustic commitments and consents; and • Implementation of management processes to ensure ongoing compliance, improvement and rapid corrective actions to avoid any potential noncompliance. • Construction plant that is intermittently used should be shut down in the intervening periods between work or throttled down to a minimum; • Appointment of a site contact to whom complaints/queries about construction activity can be directed - any complaints should be investigated, and action taken where appropriate. • Local residents should be kept informed of periods of likely intensive construction, including working hours; • All reasonable steps should be taken to limit the number of vehicles waiting to deliver materials to the Site; • Construction at the Site boundary (which would be closest to nearby residential receptors), should be undertaken as efficiently and quickly as reasonably possible; and

Potential Effect	Activity and Effect	Procedures and Mitigation Measures
		- With the exception of generators, pumps and electric plant, all plant and equipment should be shut down when not in use. - In the event that, despite use of BPM, extended periods of elevated construction noise levels are anticipated, and/or substantive night-time working is required, then the contractor will seek a Section 61 agreement with the local authority under the Control of Pollution Act (CoPA, 1974). A Section 61 is a formal agreement between the contractor and the local authority which allows the contractor and local authority to agree, for example, noise levels and hours of work.
Heritage	Change in the setting of Heritage Assets	- A CEMP will be provided as further mitigation in relation to construction phase. - The Site will be secured using hoardings/fencing. - Construction noise will be managed and reduced as far as possible.
	Inherent Operational Mitigation	- Cycle parking to be provided in line with locally adopted standards; - Network of pedestrian and cycle routes throughout the Proposed Development; - Provision of electric vehicle (EV) charging; - Framework Travel Plan to promote and stimulate modal shift
Contaminated Land and Ground Conditions	Operational – Excavation through potentially contaminated soils, controlled waters and Residents exposed to contamination in gardens and surrounding landscapes.	- Works to be completed in line with the remediation strategy - Building will be designed according to CIRIA 665 and BS8486 which will prevent ingress of ground gas. Cover systems to be designed in line with industry best practice. Mitigation measures to be validated in line with warranty providers (NHBC/LABC) requirements.
Climate Change	Construction and demolition - Greenhouse gas emissions contributing to global warming and climate change	Using environmentally friendly materials that are locally sourced where possible
	Operational Phase - Greenhouse gas emissions	Energy efficient build standard and Solar PV

Potential Effect	Activity and Effect	Procedures and Mitigation Measures
	contributing to global warming and climate change	
Community	Disruption	• Notify community and local businesses of works through notice boards and leaflets • Community consultations held for the local area • Designation of a community liaison officer • Work only within agreed working hours • Provision of complaint helpline
Waste	Generation of general waste (packaging, surplus material, excavation material)	• Waste minimisation and re-use methods should be considered
	Removal of general waste	• Recycling of materials where possible • Non-recyclable waste to registered landfill • Sheeting to cover lorries and trucks removing waste from site
	Storage of hazardous wastes	• Storage should be in designated areas, securely contained, marked, and stored liquids banded appropriately • All contaminated waste stockpiles to be stored upon and covered with suitable chemically resistant sheeting • Storage locations to be advised to all site operatives. • All stockpiles to be frequently dampen down, particularly during periods of prolonged dry weather • All contaminated waste stockpiles to be located away from site boundaries on areas of hard standing.
Storage and handling of materials	Storage of general materials	• Store in packaging until use to prevent damage and waste
	Storage of hazardous materials	• Storage should be in designated areas, securely contained, marked, and stored liquids banded appropriately • All contaminated waste stockpiles to be stored upon and covered with suitable chemically resistant sheeting • Storage locations to be advised to all site operatives. • All stockpiles to be frequently dampen down, particularly during periods of prolonged dry weather • All contaminated waste stockpiles to be located away from site boundaries on areas of hard standing.

Potential Effect	Activity and Effect	Procedures and Mitigation Measures
Discharges to water	Site runoff and seepage into groundwater	• Management of site drainage • Provision should be made for the safe disposal of wastewaters. • Spill kits and emergency response procedures to be provided and established.
Accidents and emergencies	Spillage of fuels, oils or chemicals	• Spill kits and emergency response procedures to be provided and established. • Absorbent granules to be stored on-site • All oil tank deliveries to be supervised to help avoid spillages. • Plant and wheel washing (including concrete wagons) to be carried out in a designated area min. 10m from watercourses or surface water drain.
	Accidents involving the public	• Appropriate signage to be provided

Summary

- 5.32 In summary, this chapter has presented a description of the proposed development for the site at Cherryfield Drive. This is supported by a set detailed plans and drawings. The description of development and plans set out the basis for the assessments described in this ES.
- 5.33 The potential environmental impacts of the construction phase of the proposed development have been considered and all controls or measures to mitigate these effects are in line with current environmental standards and legislative requirements. Further detail of construction impacts has been presented in each technical chapter, where applicable.
- 5.34 The Applicant will develop and implement a CEMP for the Site prior to construction, thereby ensuring that any potential environmental effects are within suitable standards or mitigated in accordance with measures identified through the EIA process, where no standards exist.