

Intermodal Logistics Park North Ltd

INTERMODAL LOGISTICS PARK NORTH (ILPN)

Intermodal Logistics Park North (ILPN) Strategic Rail Freight Interchange (SRFI)

Project reference TR510001

Preliminary Environmental Information Report (PEIR)

Chapter 13: Archaeology

October 2025

Planning Act 2008

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

This document forms a part of a Preliminary Environmental Information Report (PEIR) for the Intermodal Logistics Park North (ILPN) project.

A PEIR presents environmental information to assist consultees to form an informed view of the likely significant environmental effects of a proposed development and provide feedback.

This PEIR has been prepared by the project promoter, Intermodal Logistics Park North Ltd. The Proposed Development is described in Chapter 3 of the PEIR and is the subject of a public consultation.

Details of how to respond to the public consultation are provided at the end of Chapter 1 of the PEIR and on the project website:

<https://www.tritaxbigbox.co.uk/our-spaces/intermodal-logistics-park-north/>

This feedback will be taken into account by Intermodal Logistics Park North Ltd in the preparation of its application for a Development Consent Order for the project.

Chapter 13 ♦ Archaeology

INTRODUCTION

- 13.1 This PEIR chapter presents a preliminary assessment of the likely significant environmental effects of the Intermodal Logistics Park North Strategic Rail Freight Interchange (ILPN SRFI) Proposed Development upon archaeology. The Proposed Development is presented in **Chapter 3: Project Description**.
- 13.2 The approach to the assessment of archaeology considers the potential for likely significant environmental effects on below ground heritage assets. This includes consideration of designated heritage assets and non-designated heritage assets ('NDHA') but excludes consideration of above-ground heritage assets and their setting, which are dealt with in Chapter 12: Cultural Heritage.
- 13.3 In line with the Infrastructure Planning Environmental Impact Assessment (EIA) 2017 Regulations, this Chapter has been compiled by appropriately qualified, experienced, and competent experts. It has been prepared by Icen Projects and is authored by Stefano Ricchi BA (Hons), MA (Hons), MCIfA, Senior Project Manager – Archaeology, supported by Giulia Rossi, BA, MA, PHD, PCIfA, Senior Archaeologist- Archaeology, with review by Claire Cogar BA (Hons), MA, MCIfA, Director – Archaeology.

RELEVANT LAW, POLICY AND GUIDANCE

- 13.4 The methodology for the assessment of archaeology takes into account the following legislation, policy and guidance.

Legislation

- Ancient Monuments and Archaeological Areas Act 1979 – Part I Ancient Monuments: Protection of Scheduled Monuments. This legislation established the protection of archaeological heritage in England, Wales and Scotland, and further introduced the legal protection of sites of national significance/archaeological importance as 'Scheduled Monuments'. Through this Act, damage to a scheduled monument became a criminal offence.
- Planning Act 2008 ('the 2008 Act') - specific reference to Section 104, which imposes a statutory duty on the Secretary of State to determine applications for development consent in accordance with that section where a national policy statement has effect.
- Infrastructure Planning (Decisions) Regulations 2010 ('the 2010 Act') – specific reference to Regulation 3 (1-3). This regulation set out the matters which the decision-maker must

have regard to, for development consent order applications under the Planning Act 2008. Regulation 3 specifically outlines that if a proposal potentially affects a listed building or its setting, the decision-maker must take into account the desirability of preserving a listed building or its setting, or indeed other features of historical interest. This principle is also mirrored for development consent order applications affecting conservation areas and scheduled monuments and their settings.

- Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, which introduce modifications to the EIA process including: a binding scoping report; expanded list of environmental factors; clarification that only significant effects of a project need to be considered in the environmental statement; the introduction of monitoring requirements; a requirement for statements to be produced by competent experts and reviewed by authorities with access to 'sufficient expertise'; and confirmation developers may provide a description of project features envisaged to avoid adverse environmental effects at screening stage.

National Planning Policy

- National Networks National Policy Statement ('NPSNN', adopted 2024) – specific reference to paragraphs 5.205-5.226, which relate to the historic environment. The policy sets out the requirements to, and framework for, considering the potential effects to designated and non-designated heritage assets, including where harmful effects may arise.
- National Planning Policy Framework (NPPF) (December 2024, as amended February 2025) – specific reference to Section 16: Conserving and Enhancing the Historic Environment, paragraphs 202-221. The emphasis of this policy reflects the NPSNN above.

Local Planning Policies and Guidance

13.5 St Helens Borough Council Local Plan Up to 2037 (adopted 2022) – specifically:

- Policy LPC11 Historic Environment which requires the submission of a desk-based assessment and, where necessary, a field evaluation where a development would be likely to any site with potential to include archaeological interest, and assessment of impact on the significance of assets, in line with case law, legislation and the NPPF; and
- Policies LPA09 Parkside East which allocates the Main Site and part of the Western Rail Chord for a Strategic Rail Freight Interchange, and LPA10 Parkside West which allocates this area (including a small part of the Western Rail Chord) for industrial, storage and distribution. Related to archaeology, both of these policies require compliance with LPC11 on protection of designated heritage assets, including the Registered Battlefield of Winwick.

13.6 Wigan Statutory Development Plan comprising: Core Strategy DPD Remaining Policies (March 2024) and Places for Everyone Joint Development Plan Document for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan 2022 to 2039 (adopted 2024), specifically:

- Core Strategy Policy CP11: Historic Environment which requires the conservation and enhancement of heritage assets, and assessment of impact on the significance of heritage assets, in line with national planning policy.
- Places for Everyone Policy JP-PS: Heritage which requires the conservation and enhancement of heritage assets, and assessment of impact on the significance of heritage assets, in line with national planning policy.
- The Wigan Council 'Historic Environment Strategy SPD' (2021) is a material policy consideration.

13.7 The Initial Draft Wigan Local Plan (April 2025) has recently finished Regulation 18 Consultation. Draft Policy PL2: Our Historic Environmental, and Policy EN5: Chat Moss would be relevant to this archaeological assessment; the former follows existing policy and requires the preservation and enhancement of heritage assets, in line with national planning policy. Draft Policy J6: Land west of Winwick Lane, Lowton proposes to allocate part of the Main DCO Site for employment use linked to the cross-boundary Parkside East Strategic Rail Freight Interchange.

13.8 Warrington Borough Council Local Plan 2021/22 - 2038/39 (2023) – specifically:

- Objective W5 Warrington's Historic Environment, and Policy DC2 Historic Environment which requires the conservation and enhancement of heritage assets, including archaeology, including particular consideration to be given to the Registered Battlefield of Winwick (among others), and assessment of impact on the significance of heritage assets in line with statutory considerations and national planning policy.
- Wigan Statutory Development Plan comprising: Core Strategy DPD Remaining Policies (March 2024) – specific reference to Policy CP11: Historic Environment.

Other Relevant Guidance

- English Heritage (2008) Conservation Principles, Policies and Guidance;
- Good Practice Advice in Planning 3 (GPA3) (2017): The Setting of Heritage Assets;
- Historic England (2020), Good Practice in Planning 4: Enabling Development and Heritage Assets;
- Historic England (2017), Guidance on Battlefields;
- Historic England (2015), Managing Significance in Decision-Taking in the Historic Environment – Historic Environment Good Practice Advice in Planning: 1. The Historic Environment in Local Plans ('GPA2');
- Historic England (2019), Statements of Heritage Significance: Analysing Significance in Heritage Assets (Historic England Advice Note 12); and
- North West Archaeological Research Framework (NWARF) (2006-2008) – Phase 1

Resource Assessment, Phase 2 Research Agenda, Phase 3 Research Strategy.

Professional Regulations and Standards & Guidance

- Chartered Institute for Archaeologists (CIfA), 2023, Standard for archaeological excavation;
- Chartered Institute for Archaeologists (CIfA), 2023, Standard for archaeological monitoring and recording;
- Chartered Institute for Archaeologists (CIfA), 2014, Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (revised 2020);
- Chartered Institute for Archaeologists (CIfA), 2014, Standard and Guidance for Archaeological Field Evaluation (revised 2023);
- Chartered Institute for Archaeologists (CIfA), 2014, Code of Conduct (revised 2022);
- Chartered Institute for Archaeologists (CIfA), 2014, Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives (revised 2020);
- Chartered Institute for Archaeologists (CIfA), 2014, Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials; and
- Historic England (2022) Planning and Archaeology: Historic England Advice Note 17.

CONSULTATION TO DATE

- 13.9 This assessment has been informed by a period of Informal Consultation held between the Applicant and relevant stakeholders and local authorities during consultations held between June 2024 and August 2025. Furthermore, a process of EIA Scoping has involved consultation with the Planning Inspectorate, who issued an EIA Scoping Opinion to the Applicant in December 2024. The Scoping Opinion, alongside other consultation feedback from Historic England, St Helens Borough Council, Warrington Borough Council and Wigan Council (including Merseyside Environmental Advisory Service / Growth Lancashire, Greater Manchester and Cheshire County Archaeological Advisors as appropriate), has informed this assessment. A breakdown of consultation feedback, and the Applicant's response, is provided in Table 13.1.

Table 13.1 Scoping and informal consultation summary

Consultee	Consultee comment	Response
EIA Scoping Consultation		
Planning Inspectorate	The Scoping Report seeks to scope out effects on archaeological remains from Prehistoric, Roman, Medieval, Post-Medieval remains during operation. The Inspectorate agrees that this matter can be scoped out of the assessment on that basis. The ES should nevertheless confirm that no below ground works are required during the operation phase.	The Applicant welcomes the comment from the Planning Inspectorate to scope out effects on archaeological remains from Prehistoric, Roman, Medieval, Post-Medieval remains during operation. This will be confirmed and supported as part of the Archaeology ES Chapter submitted with the DCO application.
Planning Inspectorate	The valuation of receptor sensitivity should be consistent with Built Heritage and clarified in the ES for the assessment of archaeological receptors.	The Applicant notes this comment and responds to clarify: Archaeological receptors typically comprise buried remains and deposits whose significance is primarily informed by evidential and research potential, often without visible above-ground fabric. Their sensitivity is influenced by factors such as extent, preservation, rarity, and potential information yield of subsurface remains.

Consultee	Consultee comment	Response
		Built Heritage receptors generally involve standing structures or landscapes valued for their evidential interest as well as aesthetic, communal, and historical associations. The core valuation principles including the use of evidential and historic significance, as outlined in Historic England's Good Practice Advice Note 2: Managing Significance in Decision-Taking in the Historic Environment (2015) are consistent across both archaeology and built heritage. However, the application of these principles is tailored to reflect the differing values, vulnerabilities, and impact pathways of each asset type. This means that while the methodology is aligned at a strategic level, the specific criteria and descriptors used for archaeological receptors may differ from those applied to Built Heritage where this provides greater accuracy and relevance. The ES will present this relationship explicitly, setting out the shared framework while clearly defining any archaeology-specific sensitivity criteria. This approach maintains methodological consistency while allowing for the nuanced assessment and targeted mitigation strategies required for each receptor type.
Planning Inspectorate	The ES baseline data should be supported by information from the Cheshire Historic	Historic Environment Records (HER) from Merseyside, Greater Manchester and Cheshire HERs have been requested and included in the Archaeology Desk-

Consultee	Consultee comment	Response
	Environment Record.	Based Assessment (DBA) to inform the baseline environment included in this PEIR Chapter.
Informal Consultation		
Historic England	Historic England considers that the proposals contained in the Topic Paper are in line with current best practice and should result in an appropriate level of assessment of the potential impacts of the Proposed Development on archaeology, together with an appropriate strategy for the mitigation of any impacts identified.	The Applicant welcomes the positive feedback from Historic England on the Applicant's approach to the assessment and to the forthcoming Archaeology ES chapter. This has been taken forward and added to for the PEIR Chapter and subsequent ES Chapter
	Arrangements for agreeing and implementing suitable mitigation measures, where required, are set out in the Topic Paper, as is an outline of the next steps required to complete the work on the ES chapter. Historic England considers that the proposals contained in the Topic Paper are in line with current best practice and should result in an appropriate level of assessment of the potential impacts of the Proposed Development on archaeology, together with an appropriate strategy for the mitigation of any impacts identified.	It is noted that Historic England agree with the approach taken in the topic papers to agreeing suitable mitigation. This has been be taken forward and added to for the PEIR Chapter and subsequent ES Chapter

Consultee	Consultee comment	Response
Historic England	Overall, Historic England considers that the Archaeology and Heritage Topic Papers set out a reasonable framework for completion of the assessment of the potential impacts of the Proposed Development upon the historic environment, and for the development of appropriate measures to mitigate any impacts identified. We look forward to further discussions, particularly on the nature and specification of mitigation measures, as the assessment progresses.	It is noted that Historic England agrees with the framework set out in the Topic Paper. This PEIR chapter has been informed by consultation with Historic England. The Applicant will seek to continue discussions with Historic England as the assessment progresses towards the preparation of Archaeology ES Chapter and the scope for the archaeological mitigation.
St Helens Borough Council	Merseyside Environmental Advisory Service ("MEAS") have reviewed the content of the Archaeology Topic Paper on behalf of the LPA and is satisfied with the content at this stage of the process.	The Applicant welcomes the positive feedback from MEAS on the Archaeology Topic Paper. The scope presented in the Archaeology Topic Paper informed the contents and the assessment carried out in this PEIR Chapter, and will be progressed towards the Archaeology ES Chapter.

- 13.10 Following the EIA Scoping Consultation and Informal Consultation stages, further consultation was held between the Applicant and relevant stakeholders and local authorities via online meetings and email correspondence. The consultations relevant to this PEIR Chapter are set out in Table 13.2.

Table 13.2 Other consultation

Consultee	Date	Consultee comment	Response
Historic England	27.06.2024	Iceni Projects presented the Proposed Development	N/A
Merseyside Environmental Advisory Service Cheshire West Development Control Archaeologist Greater Manchester Archaeological Advisory Service	26.03.2025	Geophysical Survey to be carried out within the Order Limits to complete the survey carried out in 2007 DBA to be informed by a walkover survey on the entire Order Limits, with a focus on a visual assessment of earthworks/hedgerows/modern truncations. A geoarchaeological paleoenvironmental assessment will be expected to be carried out nearby the moss on the northern section of the Order Limits The scope of the trial trenching evaluations will be informed by the results of DBA, geophysical survey, paleoenvironmental assessment and the expected impact arising from the proposed development and will include a proportionate investigation of areas where geophysics did not detect any archaeology (blank areas).	All comments agreed and incorporated in this PEIR Chapter.
Merseyside Environmental Advisory Service Cheshire West Development Control	14.04.2025	The 2007 geophysical survey is acceptable and the area which was surveyed does not require any further geophysics.	Agreed

Consultee	Date	Consultee comment	Response
Archaeologist Greater Manchester Archaeological Advisory Service			
Merseyside Environmental Advisory Service	16.05.2025	Written Scheme of Investigation for Geophysical Survey Approved ¹	Agreed
Merseyside Environmental Advisory Service Historic England	18.08.2025	Presentation of the new Draft Order Limits, including the BNG Land (north of Chat Moss railway line) and the Topsoil Reuse Area (east of Winwick Lane) DBA to include the extended Draft Order Limits Draft DBA to be issued to the consultees before the PIER LiDAR, geophysical survey and arial photography assessment needed to inform the DCO application and not the PEIR Chapter.	Agreed

¹ Approved Geophysical Survey Written Scheme of Investigation reproduced in Appendix 13.2 of this PEIR Chapter.

Consultee	Date	Consultee comment	Response
Merseyside Environmental Advisory Service	21.08.2025	Scope of Work for Walkover Survey of the draft Main Site Approved ²	Agreed

² Approved Scope of Work for Walkover Survey reproduced in Appendix 13.3 of this PEIR Chapter.

METHODOLOGY AND DATA SOURCES

- 13.11 This PEIR Chapter sets out the preliminary assessment of the impacts of the construction works associated with the Proposed Development on any identified or potential archaeological remains. This is followed by a preliminary assessment of the overall significance of effect upon archaeological assets, both before and after mitigation. The significance of effect reflects both the importance of the resource and the degree to which the resource would be impacted (i.e. magnitude of impact).
- 13.12 This PEIR Chapter provides a reasonable worst-case assessment made at the time of writing based on the maximum building envelope, as the construction of the Proposed Development is the time at which archaeological assets (receptors) could be impacted due to associated groundworks, as confirmed during the EIA Scoping Consultation (Table 13.1).
- 13.13 Under the requirements of NPSNN (2024), the NPPF (December 2024, as amended February 2025), and of other guidance mentioned in Section 13.4 and provided in detail in in **Appendix 13.1: Archaeological DBA**, the process of impact assessments applied to buried heritage involves the following steps:
- Assessing the potential for unknown archaeological assets based on known baseline preliminary evidence;
 - Understanding the archaeological assets. This includes describing the asset, its surroundings and defining its heritage significance (referred to in the ES chapter as ‘Sensitivity’ to avoid confusion with Significance of Effect);
 - Understanding the level and degree of impact (Magnitude of Change) to the significance of the archaeological asset; and
 - Determining the Significance of Effect on archaeological assets caused by the Proposed Development, by considering the Sensitivity of the receptor and the predicted Magnitude of Change.

Sensitivity Criteria (Value)

- 13.14 The NPSNN requires the value of any heritage asset that may be affected by a project to be described in a proportionate manner to understand the potential for significant impacts on heritage assets (paras. 5.210). The methodology used here for understanding value draws from the approach set out in Historic England’s ‘Conservation Principles’ and NPPF Annex 2 by identifying and describing the components which contribute to the heritage interests.
- 13.15 In line with the NPSNN and NPPF, local planning policies and industry standards and guidance, an Archaeological DBA (Appendix 13.1) has been prepared to establish the archaeological sensitivity of known archaeological assets, the potential for the presence of unknown assets and to review the potential impact of the Proposed Development upon any such assets. The DBA establishes the archaeological baseline conditions at the draft Order Limits and informs the preliminary assessment carried out as part of this PEIR Chapter.

13.16 Significance values, or **Sensitivity**, of an archaeological receptor are guided by its designated status and its heritage interest. The **Sensitivity** of each receptor has been evaluated as being High, Medium, Low or Very Low based on a review of the baseline position of each receptor and its performance against benchmark areas, in accordance with the criteria set out in the NPSNN, Historic England's 'Conservation Principles' and NPPF Annex 2, as per Table 13.3 below. Using professional judgement and the results of consultation with relevant stakeholders, archaeological assets are assessed both on an individual basis and as part of the entire buried heritage baseline. Regional variations and individual qualities are also considered where applicable. This includes aspects such as the regional scarcity of specific asset type, or whether assets can be considered to be of schedulable quality due to them being of national importance.

13.17 For the purposes of this PEIR Chapter:

- Archaeological 'receptors' are also referred to as 'archaeological assets'; and
- To avoid conflict with the EIA use of the term 'significance', the heritage significance (value) will be referred to as '**Sensitivity**'.

Table 13.3 Sensitivity Classification

Sensitivity	Description
International / National (very high)	The highest status of asset and indicative of national importance: e.g. World Heritage Sites (WHS), Scheduled Monuments (SMs), Grade I and II* Listed Buildings (LBs), Grade I and II* Registered Parks and Gardens (RPGs), Protected Wrecks, Heritage assets of national importance, well preserved historic landscapes with exceptional coherence, time depth, or other critical factor(s).
National / Regional / County (high)	Archaeological sites that may be designated or undesignated, may contain well preserved or in situ structures, buildings of historical significance, historic landscapes with a reasonably defined extent, or reasonable evidence of occupation/settlement or activities (ritual, industrial etc.). e.g. Grade II RPGs, Conservation Areas (CAs), Designated historic battlefields, Grade II LBs, burial grounds, protected heritage landscapes such as Ancient Woodland, heritage assets of regional or county importance.

Sensitivity	Description
Sub-regional / District (medium)	Designated or undesignated archaeological sites with reasonable evidence of human activity. Assets may be of limited historic value but may contribute to district or local knowledge and/or research objectives. May contain structures or buildings of potential historic merit. e.g. Historic village settlements, associated historic field systems and boundaries, historic road systems.
Local Area / Parish (Low)	Heritage assets with a local level cultural or education value only e.g. Historic field systems and boundaries, agricultural features such as ridge and furrow, ephemeral archaeological evidence, artefacts of poor contextual stratigraphy.
Negligible (very low)	Historic assets with very little or no surviving archaeological interest or stratigraphic integrity. Buildings and landscapes of no historical significance. e.g. Destroyed objects, buildings of no architectural merit, relatively modern landscape features or disturbances such as quarries, field boundaries, drains etc.
Unknown	Insufficient information exists to assess the importance. Significance of below ground archaeological remains is often unknown until their nature and extent

Magnitude of Change

- 13.18 Legislative and policy requirements for the assessment of effects on archaeological assets require the assessor to establish whether the value is preserved, better revealed/enhanced or harmed as a result of the Proposed Development.
- 13.19 The Magnitude of Change is a combination of (i) the size and scale of the potential change; and (ii) the duration of the change and its reversibility.
- 13.20 The assessment of the Magnitude of Change will be made in consideration of any environmental design measures (embedded mitigation) or archaeological mitigation, as per Table 13.4 below. Any impact upon archaeological assets can be positive or negative; direct or indirect; and/or cumulative. Impacts can affect the physical fabric of the asset or their setting. Direct physical impacts are always considered permanent as they result in the total, or partial loss of a buried heritage asset.

Table 13.4 Magnitude of Change

Magnitude of Effect	Description
High	Change such that the value of the heritage asset is totally altered or destroyed through physical impact or comprehensive alteration to its setting affecting its value, seriously impeding the ability to understand and appreciate the asset.
Medium	Change such that the heritage value of the asset is affected due to alterations to its physical form or noticeable change to its setting through alterations resulting in erosion in the ability to understand and appreciate the asset.
Low	Change such that the heritage value of the asset is slightly affected through physical alteration to its physical form or slight change to its setting affecting the ability to understand and appreciate the asset.
Very Low	Changes that barely affect the value of the asset or its setting, resulting in no real change in the ability to understand and appreciate the asset.
No Change	No alteration or change to the value of the asset or its setting.

Significance of Effect

- 13.21 The principles of the impact methodology rest upon independently evaluating the **Sensitivity** of the buried heritage resources (Table 13.3) and the **Magnitude of Effect** (Table 13.4) upon that **Sensitivity**. By combining the **Sensitivity** of the archaeological resource with the predicted **Magnitude of Effect**, the **Significance of Effect** can be determined.
- 13.22 Once the Significance of Effect has been classified, consideration is given to whether the qualitative nature of the resultant effect is, therefore, ‘significant beneficial’, ‘significant adverse’ or ‘not significant’.
- 13.23 Physical impacts on archaeological receptors resulting in the disturbance or removal, in part or in whole, of buried heritage assets result in direct, permanent, and site-scale adverse effects on those receptors. In addition to the above, impacts that result in alteration in the below-ground burial environment, such as alteration of groundwater hydrology, have the potential to result in indirect, permanent effects that may affect buried heritage assets within the Draft Order Limits and the immediate vicinity (local-scale), that may either be adverse (resulting in the physical alteration of buried heritage assets) or neutral (resulting in no discernible change in the nature of the buried heritage asset).
- 13.24 The **Significance of Effect**, intended as the overall effect on the asset caused by any impact

arising from the Proposed Development is determined by consideration of the **Sensitivity** of the asset and the **Magnitude of Change**, with a level of professional judgement included in the determination, as per Table 13.5. This is identified by the degree of change that would be experienced by the asset and its setting if the Proposed Development were to be completed as compared with a 'do nothing' situation.

- 13.25 Effects can be neutral, adverse, or beneficial. There is no direct correlation between the Significance of Effect and levels of harm, however in general terms residual Major or Moderate effects are deemed to be 'Significant' for the purposes of the EIA Regulations, in accordance with standard EIA practice. Neutral, Minor and Negligible effects are deemed to be 'Not Significant' (red in Table 13.5).
- 13.26 For any harm to non-designated heritage assets, NPPF para.216 requires balanced judgement regarding scale of harm or loss and value (there is no equivalent provision in NPSNN).

Table 13.5 Significance of Effect

		Magnitude of Effect				
		High	Medium	Low	Very Low	No Change
Sensitivity	Very High	Major	Major	Moderate	Moderate	Neutral
	High	Major	Moderate	Minor	Minor	Neutral
	Medium	Moderate	Moderate	Minor	Negligible	Neutral
	Low	Moderate	Minor	Negligible	Negligible	Neutral
	Very Low	Minor	Negligible	Negligible	Negligible	Neutral

- 13.27 The **Significance of Effects** assessment presented in Table 13.5 is not intended to be 'prescriptive', but rather it allows for the employment of professional judgement to determine the most appropriate level of effect for each heritage asset that is identified.

Buried Heritage Potential

- 13.28 The **Potential** for unknown archaeological assets is assessed on known baseline evidence, but the physical nature and extent of any archaeological resource surviving within the Draft Order Limits cannot be fully confirmed without investigation. The **Potential** is identified using professional judgement and knowledge, applied to the information available in the baseline

data. The 'Draft Order Limits' baseline potential is compared to the level of existing impact upon it, from modern and historic developments.

13.29 The **Potential** for surviving archaeological assets of various periods can be assigned a value in accordance with the criteria set out in Table 13.6:

Table 13.6 Archaeological Potential

Potential	Description
High	The available evidence suggests a high likelihood for past activity within the Order Limits and a strong potential for archaeological evidence to survive intact or reasonably intact.
Moderate	The available evidence suggests a reasonable likelihood for past activity within the Order Limits and a potential that archaeological evidence may survive although the nature and extent of survival is thought to be limited.
Low	The available evidence suggests archaeological evidence of activity is unlikely to survive within the Order Limits, although some minor land-use may have occurred.
Uncertain	Insufficient information to assess.

The Study Area and Scope of Assessment

13.30 A Study Area of 1km radius from the draft Main Order Limits has been used to identify designated and non-designated archaeological assets which may be affected by the Proposed Development (Figure 13.1).

13.31 For the purposes of this PEIR Chapter, the Draft Order Limits includes the following:

- the Main Site of the DCO Site, which encompasses the land to the east of the M6 motorway, to the south of the Chat Moss Line and to the west of Winwick Lane;
- the Western Rail Chord of the DCO Site (WCR), which encompasses the land to the west of the M6 motorway and to the east of the West Coast Mainline where the rail chord for the SRFI will be located;
- the Northern Mitigation Area, which encompasses the land to the north of the railway line incorporating land for community use, biodiversity net gain (BNG), public rights of way (PRoW), landscaping and soil management;
- the Soils Reuse Area, which encompasses the land to the east of Winwick Lane to be used for the purposes of storage and reuse of soils; and

- Eastern Off-Site Planting Area, which encompasses a Public Right of Way (PRoW), and an area selection for landscape and visual effects mitigation.

- 13.32 For the purpose of this PEIR Chapter, the Study Area has been scoped from the draft Main Order Limits (as per Paragraph 13.1) excluding the Highway Mitigation Options, as these elements of the Proposed Development would be minor, ground level works on areas that have already been effected by the present development and therefore unlikely to affect the undisturbed archaeological remains. A detailed assessment of these areas will be carried out, if significant effects are expected, as part of the Archaeological ES Chapter.
- 13.33 The extent of the Study Area has been agreed during the EIA Scoping and during consultation with Merseyside Environmental Advisory Service (MEAS), Greater Manchester Archaeological Advisory Service (GMAAS) and Cheshire Archaeology Planning Advisory Service (CAPAS) which provide archaeological advice to the Local Planning Authorities (LPAs), St Helens Borough Council, Wigan Council and Warrington Borough Council, respectively.
- 13.34 Any inclusion in this and future assessment of assets outside of the defined Study Areas will be based on research and professional judgment. These will be only discussed where they are considered to provide additional context information to inform the potential for unknown buried heritage assets that may be impacted by the Proposed Development.
- 13.35 For the purposes of this PEIR Chapter, the Study Area does not include the remote highway works, for which a preliminary assessment has been carried out and presented in **Chapter 7.2: Highway Mitigation Options Report**.

Resources and Data Collection

- 13.36 An understanding of the buried heritage context of the Proposed Development has been gained through a combination of desk-based research and analysis, and non-intrusive fieldwork. The following sources were consulted in the production of **Appendix 13.1: Archaeological DBA**:
- **Aerial Photography** - Historic and modern aerial photography held by Historic England Archives, Merseyside HER, Cheshire HER and Greater Manchester HER and included in the Historic England Aerial Photo Explorer (<https://historicengland.org.uk/images-books/archive/collections/aerial-photos/>);
 - **Archaeological Data Service (ADS)** - A comprehensive archive of published and unpublished fieldwork reports;
 - Archive visits - undertaken on 28th of May 2025 both at the St Helens Archives and the Wigan and Leigh Archives;
 - Appendix 5 of Warrington Borough Council's Local Plan 2022/23 to 2038/39 (2023) which presents a local list of Non-Designated Heritage Assets within the LPA;
 - British Geological Survey (BGS) - Solid and Drift geology digital mapping and geological borehole data where applicable;

- Details of the Proposed Development - Existing and proposed development plans, engineering data and schematic plans relating to the construction of the Proposed Development as presented in Chapter 02: Site Description and Chapter 03: Project Description of this PEIR;
- Geophysical Survey – A previous geophysical survey covering part of the DCO Site was undertaken prior to the Parkside Phase 1 development (planning reference P/2018/0048/OUP; Stratascan 2007). In 2025, an additional geophysical survey was carried out across the areas of the Main Site not previously assessed, in accordance with a Written Scheme of Investigation (WSI; Magnitude 2025) approved by the Archaeological Advisory Teams to the Local Planning Authorities (LPAs);
- Historic England - Information on statutory designated assets data including the National Heritage List for England (NHLE), World Heritage Sites, Scheduled Monuments, Listed buildings, and any identified Heritage at Risk;
- Historic Environment Records (HERs) Data detailing the results of previous archaeological investigations within the Draft Order Limits and in the surrounding Study Areas³;
- Historic Landscape Characterisation – A review of the currently available data from the Merseyside Historic Characterisation Project (2011);
- Host Authority planning policies - Details within the local planning authority (LPA) Local Plan's and other information on historic environment policies, conservation areas and locally listed buildings where published online;
- LiDAR imagery - Site LiDAR imagery as available from:
<https://historicengland.maps.arcgis.com/apps/webappviewer/index.html?id=d45dabcecf5541f18255e12e5cd5f85a&mobileBreakPoint=300;>
- National Library of Scotland - Ordnance Survey (OS) maps from their historic first edition through to modern OS mapping. Earlier historic maps were also consulted where available; and
- Site Reports - Reports on past archaeological investigations.

Assumptions, Limitations & Uncertainties

13.37 This chapter forms a preliminary assessment which has been based on available information at the time of preparing the PEIR Chapter. A final assessment will be undertaken as part of the EIA for the Proposed Development and will be reported in the ES that will be submitted with the DCO application, and therefore the findings of this PEIR Chapter may be subject to change as the design of the Proposed Development is developed and refined through the EIA and consultation process.

³ Data received in March then updated in August 2025, Merseyside HER data Reference No. CME3391, Greater Manchester HER data, and Cheshire HER Reference No. 2663/421/0/CCH13398.

- 13.38 The assessment of potential impacts on archaeological remains presented in this PEIR Chapter has therefore been based on professional judgement informed by this available research. The conclusions of this assessment, and the accompanying **Appendix 13.1: Archaeological DBA**, may be revised following further investigation. Prior to submission of the DCO application, there will be further desk-based research, and fieldwork (including an earthwork survey, completion of on-going geophysical surveys and intrusive field evaluation works).
- 13.39 The Sensitivity of archaeological assets considered in this PEIR chapter will be reviewed as part of the Archaeological ES Chapter, once more information from the intrusive field evaluation work will be available. It is assumed that data provided by third parties is accurate at the time of reporting. HER data are not a record of all surviving heritage assets, but only of all the known archaeological assets recorded in the area so far. The HER information does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

BASELINE CONDITIONS

Baseline data collection

- 13.40 The following assessment and survey were carried out to inform the existing baseline and to inform the assessment:
- Full Archaeological Desk-Based Assessment (DBA), presented in Appendix 13.1;
 - Geophysical surveys, presented in Section 6 of **Appendix 13.1: Archaeological DBA**; and,
 - Geographical Information System ('GIS') software has been used to collate and interrogate digital data. This has included mapping both designated and non-designated heritage assets within identified Study Area.
 - Site Visits were undertaken by the Heritage Team in June and September 2024, including a site walkthrough, and photographic recording, which were made available to inform this PEIR Chapter. Additional Site Visits will be carried out to inform the Archaeology ES Chapter, and the scope of the archaeological trial trenching evaluation.

Archaeological baseline conditions

General

- 13.41 A full review of the archaeological baseline, including an assessment of the Historic Land Characterisation and a map regression exercise, is provided in **Appendix 13.1: Archaeological DBA** and not fully reproduced here.
- 13.42 For this PEIR Chapter, archaeological assets outside of the Draft Order Limits have been scoped out as it is not expected that construction activities of the Proposed Development will have any physical impact outside of the Draft Order Limits (as defined in paragraph 13.26 of this document). This assumption will be reviewed, if needed, as part of the Archaeology ES

Chapter, following further refinement of the Proposed Development and its construction activities.

Designated Heritage Assets

- 13.43 Within the Draft Order Limits, the Huskisson Memorial, a Grade II listed building (List Entry Number 1075900), lies on the south side of the Chat Moss Line.
- 13.44 Within the Study Area, but outside the Draft Order Limits, there are two scheduled monuments:
- the Castle Hill motte and bailey and bowl barrow, c. 830m north of the Western Rail Chord (List Entry Number: 1009867); and
 - the bowl barrow west of Highfield Lane, c. 715m south of the Main Site, (List Entry Number: 1011124).

Geological Influence

- 13.45 The Draft Order Limits are predominantly overlain by topsoil and glacial till, representing superficial deposits formed during the last glacial and post-glacial periods. The topsoil typically measures between 0.30 m and 0.40 m in thickness and is underlain by Devensian glacial till (boulder clay), which varies in thickness from approximately 0.60 m to over 2.00 m.
- 13.46 Within the Highfield Moss Site of Special Scientific Interest (SSSI) area, located adjacent to northern portion of the Draft Order Limits (**Figure 13.2**), there is the potential for substantial peat deposits to be present, consistently with historic waterlogged environments where organic material accumulated over extended periods.
- 13.47 The full assessment of the geological baseline is provided in the Archaeology DBA (Appendix 13.1) and will be further expanded in relation to its influence and contribution to the archaeological resource and baseline as part of the ES Chapter.

Historic Landscape Characterisation

- 13.48 The full description of the Historic Landscape Characterisation (HLC) of the Draft Order Limits is presented in **Appendix 13.1: Archaeological DBA**. If required, a full assessment of the potential impact of the Proposed Development on the HLC will be carried out as part of the Archaeological ES Chapter, following further refinement of the Proposed Development and its construction activities.
- 13.49 The landscape within the Draft Order Limits presents a historically layered and evolving rural environment shaped by agricultural expansion, infrastructural development, and wetland reclamation. Through HLC, several key typologies are evident, reflecting significant changes in land use and management from the post-medieval period to the present day.
- 13.50 The most prominent character type within the area is the Field System, comprising regular medium and semi-regular large enclosures.
- 13.51 The Western Rail Chord falls within the Rough Land broad type. Such areas commonly emerge

between zones of active infrastructure and residual or future development land. In this case, the site lies between the West Coast Main Line and the Parkside West development area, and its character reflects low-intensity land use shaped largely by 20th-century infrastructural expansion.

- 13.52 Isolated farmsteads are scattered throughout the wider landscape and correspond to the Residential (Agricultural) HLC type. These buildings, generally dating from the 18th to the 20th centuries, represent long-standing agricultural presence and provide continuity within a changing rural environment. Some remnants of isolated farmstead, demolished between the 19th and 20th century are likely to be present within the Draft Order Limits.
- 13.53 The Chat Moss railway line, which forms the northern edge of the Draft Order Limits, is a defining element of the Communication broad type. Beyond it lies Highfield Moss SSSI, a designated Site of Special Scientific Interest (SSSI), which preserves remnants of the area's original lowland peatland ecology and contrasts sharply with the intensively managed farmland to the south.
- 13.54 This landscape reflects a sequence of changes from wetland fringe and small-scale enclosure to large-scale mechanised farming and infrastructural integration. The combined presence of Field System, Rough Land, Residential (Agricultural), and Communication typologies demonstrates the significant role that human intervention has played in shaping this rural landscape across the past two and a half centuries.

Archaeological Receptors

- 13.55 **Appendix 13.1: Archaeological DBA** has provided a baseline of 84 non-designated archaeological assets within, or overlapping the border of, the 1km study area, with 24 recorded within the Draft Order Limits.
- 13.56 The Archaeological DBA has established that the following archaeological assets are recorded within or in close proximity to the Draft Order Limits, and therefore considered in this PEIR Chapter as archaeological assets potentially affected by the Proposed Development (**Figure 13.2**):
- MME9332 – Huskisson Memorial, a Grade II listed building (List Entry Number 1075900): A memorial to William Huskisson, MP for Liverpool. Huskisson is reputed to have been the world's first fatality of the Railway Age, being knocked down and fatally injured by the Rocket during the opening celebrations of the Liverpool and Manchester Railway in 1830.
 - MME22971 - Neolithic tree throw was found during a strip, map and sample excavation south of Barrow Lane, Newton-in-Makerfield in 2023.
 - MCH8557 - Kenyon Hall tumulus is recorded as the site of a bronze age round barrow. 19th century finds from the barrow include the remains of several pottery vessels and a fragment of a bronze brooch.
 - MME9366 - Possible ring ditch cropmark, to the northeast of Barrow Lane, Newton-in-Makerfield.

- MME9338 - Possible location of a barrow, at the junction of the M6 and Winwick Lane, Newton-in- Makerfield.
- MCH13141 - A cast Roman brooch of Polden Hill type. It is very worn and has a tapering bow, plano convex in section. It dates from 43 AD to 150 AD.
- MME13856 - Battle of Winwick Pass, Newton Park, Newton-in-Makerfield, 19th August 1648 (also known as the Battle of Winwick and as the Battle of Red Bank); the Parliamentary position within Merseyside.
- MME9323 - Former site of Highfield Farm, Parkside Road, Newton-in-Makerfield, an 18th century building.
- MME9329 - Highfield Farm barn, off Parkside Road, Newton-in-Makerfield, a 17th century building.
- MME19659 - Former site of Parkside Farm, Parkside Road, Newton-in-Makerfield, an 18th century building.
- MME19660 - Former site of a building, Parkside Road, Newton-in-Makerfield, an 18th century structure.
- MME9317 - The Stables, Parkside Road, Newton-in-Makerfield, formerly an 18th century farm building.
- MME9361 - Former site of a house, Barrow Lane, Newton-in-Makerfield, an 18th century building.
- MME9312 - Former site of a house, Parkside Road, Newton-in-Makerfield, an 18th century building.
- MME9362 - Former site of Barrow Lane Cottages, Barrow Lane, Newton-in-Makerfield, an 18th century building.
- MME9363 - Former site of Barrow Lane Cottage, Barrow Lane, Newton-in-Makerfield, an 18th century building.
- MME19661 - Former site of a building, Rough Farm, Winwick Lane, Newton-in-Makerfield, an 18th century structure.
- MME9339 - Former site of a barn at Rough Farm, Winwick Lane, Newton-in-Makerfield, a 19th century building, built or rebuilt in 1843.
- MME9365 - Former site of Rough Cottage, Winwick Lane, Newton-in-Makerfield, an 18th century building rebuilt in the 19th century.
- MME9367 - Possible post medieval field boundaries, to the northeast of M6, Newton-in-Makerfield.

- MME9360 - Possible post medieval field boundaries, to the east of M6, Newton-in-Makerfield.
- MME9311 - Former site of Newton Park, Newton-in-Makerfield, a medieval park recorded from the early 14th century, sold and farmed from the mid-17th century onwards.
- MME15014 - Possible site of a house, Newton Park, All Groups Newton-in-Makerfield.
- MME9311 - Former site of Newton Park, Newton-in-Makerfield, a medieval park recorded from the early 14th century, sold and farmed from the mid-17th century onwards.
- MCH25334 - The manor of Kenyon was established in the early 13th century, and a manor house may have existed here from that time. The house was later described as being a timber framed building dating from 1671, which suggests that the house was rebuilt in the seventeenth century. The house was either demolished or extensively rebuilt in the first half of the nineteenth century, as a farmhouse to the associated farmstead.

13.57 The Geophysical Survey (York Archaeology, 2025), and the LiDAR and Aerial Photography Archaeological Landscape Assessment (Lichenstone, 2025)⁴ carried out to as part of the Proposed Development detected a number of anomalies that have been interpreted as of potential archaeological origin. Within the Draft Order Limits, the following undated buried heritage assets have been recorded (Figure 13.3):

- Semi-parallel linear features aptured in pre-colliery aerial photographs may be linked to historical farming, located within the Western Rail Chord (ILPN001);
- Set of linear earthworks potentially to the construction, operation, or demolition of the former Parkside Colliery, located within the Western Rail Chord (ILPN002, ILPN003, ILPN004);
- Three distinct areas of ridge-and-furrow or agricultural drainage features as interpreted in the geophysical survey report, located on the southwest section of the Draft Order Limits (ILPN005, ILPN006, ILPN007; ILPN008);
- Cluster of broad linear and rectilinear depressions and mounds occupies a shallow valley on the southeast of the Draft Order Limits (ILPN009). These are thought to reflect a combination of natural fluvial processes and anthropogenic modification of uncertain date. The geophysical survey confirmed the presence of these features, tentatively interpreted as extraction pits;
- Circular anomaly visible on Google Earth 2018 imagery, interpreted as a possible ring ditch, suggesting prehistoric activity within the study area (ILPN010). The Draft Order Limits also features numerous straight linear elements, many of which correspond to historic field boundaries, though some may instead relate to land drainage

⁴ Both fully reproduced in **Appendix 13.1: Archaeological DBA**.

infrastructure or buried services;

- In the northeast section of the Main Site, several discrete topographic depressions are observed, with a few extending southwards (ILPN011 to ILPN020). The geophysical survey confirmed the presence of these features, tentatively interpreted as extraction pits;
- Historic Ordnance Survey maps identify some as 'Mains Pits' (ILPN021) and 'Moss Pits' (ILPN022), indicating past extractive use; others may be former ponds. The geophysical survey confirmed the presence of these features, tentatively interpreted as extraction pits. Adjacent linear earthworks (ILPN023) may also have industrial origins;
- Additional features of interest include a central group of small, rectilinear features (ILPN024), measuring approximately 6–8 metres each, whose function remains unclear;
- To the west of Kenyon Hall, sharply defined rectangular crop marks (ILPN025), visible in Google Earth 2005 imagery, are likely the result of modern agricultural activity but may warrant further investigation;
- Two rectangular crop marks (ILPN026) found at the site of the former Barrow Lane House do not align with the known building footprint and may also represent ponds; and
- In the centre of the Main Site additional earthworks of unclear nature have been identified (ILPN0027, ILPN28, ILPN29).

Sensitivity of Archaeological and Landscape Receptors

- 13.58 Findspots in themselves are not considered as receptors as the archaeological finds would have been collected and removed from their context, and therefore no sensitivity value is assigned to them for the purposes of this PEIR Chapter. However, they do provide an indication of broader previous historic activity, with concentrations of finds of a specific date representing evidence for the potential of unknown archaeological remains in the area. Findspots have been considered in **Appendix 13.1: Archaeological DBA** in terms of helping to characterise the context historic environment and inform the potential for archaeological remains or deposits within the Draft Order Limits.
- 13.59 The HERs in Table 13.7 are divided by administrative county. As the same HER may be shared by more than one county, to avoid repetition they have been considered only once.
- 13.60 A preliminary assessment of the Sensitivity of the Archaeological Receptor is presented in Table 13.7 below.

Table 13.7 Preliminary Sensitivity Assessment

ID number	Description	Designation	Preliminary Sensitivity
<i>Merseyside Metropolitan County</i>			
NLE: 1075900 MME22971	Huskisson Memorial	Grade II	High
NLE: 1412878 MME13856	Battle of Winwick (also known as Battle of Red Bank) 1648	Registered Historic Battlefield	High
MME22971	Neolithic tree throw	Non-designated Asset	N/A: recorded and removed during archaeological strip, map and sample
MME9366	Possible ring ditch cropmark	Non-designated Asset	Medium: associated surviving deposits are considered to have archaeological value in the information they might contain relating to settlement activities, and land use. These remains are non-designated and are assumed to be of Medium Sensitivity.
MME9338	Possible location of a barrow	Non-designated Asset	Medium: associated surviving deposits are considered to have archaeological value in the information they might contain relating to human and settlement activities, funeral practices and material culture. These remains are non-designated and are assumed to be of Medium Sensitivity.
MME9323	Former site of Highfield Farm (non-extant)	Non-designated Asset	Negligible: any remnants of features or deposits associated

ID number	Description	Designation	Preliminary Sensitivity
MME9329	Highfield Farm barn (non-extant), 17th c.		with the former building may have some limited archaeological interest linked to the information they may contain associated with post-medieval agriculture practices, settlement activities and landscape characterisation, although it is currently unclear if any remains survive. As the feature represents the former site of a type of agricultural building common in Merseyside and in the Proposed Development area, and as it has been demolished, its Sensitivity is considered to be Negligible.
MME19659	Former site of Parkside Farm (non-extant), 18th c.		
MME19660	Former site of a building, Parkside Road (non-extant), 18th c.		
MME9317	Former the Stables, Parkside Road (non-extant), 18th c.		
MME9361	Former site of a house, Barrow Lane, Newton-in-Makerfield (non-extant), 18th c.		
MME9312	Former site of a house, Parkside Road (non-extant), 18th c.		
MME9362	Former site of Barrow Lane Cottages (non-extant), 18th c.		
MME19661	Former site of a building, Rough Farm (non-extant), 18th c.		
MME9339	Former site of a barn at Rough Farm (non-extant), 19th c.		
MME9365	Former site of Rough Cottage (non-extant),		

ID number	Description	Designation	Preliminary Sensitivity
	18th c. rebuilt in the 19th c.		
MME9367	Possible post medieval field boundaries	Non-designated Asset	Low: The remains are considered to have archaeological value in the information they might contain relating to land management and land use. These remains are non-designated and are assumed to be of Low Sensitivity.
MME9360	Possible post medieval field boundaries		
MME9311	Former site of Newton Park, Newton-in-Makerfield (14th c.)	Non-designated Asset	Low: the former site of Newton Park has been used as agricultural land since the 17 th c. It is expected that little of the original Park's structure and layout survived agricultural activities.
MME15014	Possible site of a house.	Non-designated Asset	Negligible: any remnants associated with the former building may have some limited archaeological interest linked to the information they may contain associated with post-medieval agriculture practices, settlement activities and landscape characterisation, although it is currently unclear if any remains survive. As the feature represents the former site of a type of agricultural building common in Merseyside and in the Proposed Development area, and as it has been demolished, its value is considered to be negligible.
Warrington and Cheshire County			

ID number	Description	Designation	Preliminary Sensitivity
MCH25334	The manor of Kenyon, 13th c., either demolished or extensively rebuilt in the first half of the 19th c., as a farmhouse to the associated farmstead	Non-designated Asset	Medium: due to the potential association with the Grade II Listed Building Wall, Gates And Gate Piers To Front Of Kenyon Hall (NLE: 1356218), any surviving remnants of the original 13 th c. Manor of Kenyon or its 19 th c. rebuild would have to be consider of Medium Sensitivity.
MCH8557	Kenyon Hall tumulus	Non-designated Asset	N/A: the tumulus is reported to have been destroyed between the 1887 and 1903. Associated surviving deposits, if any, could be of Low/Medium Sensitivity based on their extent and preservation in the information they might contain relating to human and settlement activities, funeral practices and material culture
MCH13141	A cast Roman brooch of Polden Hill type	Non-designated Asset	N/A: collected and removed from its original context
MCH8802	Possible Ponds	Non-designated Asset	Low to Medium: The remains are considered to have archaeological value in the information they might contain relating historic peat extraction or other industrial activity. These remains are non-designated and are assumed to be of Low to Medium Sensitivity depending on the preservation of any surviving peat deposit.
<i>Greater Manchester</i>			
MGM5816	Highfield Moss SSSI	Non-designated	Medium to High: this entry marks the location of the

ID number	Description	Designation	Preliminary Sensitivity
		Asset	potential ancient extent of the Highfield Moss SSSI. It is likely that, outside of the current SSSI Moss area, much of the former peat cover has been removed, drained and converted to agricultural use in the historic period. Current BGS mapping only shows peat extending to the edges of the SSSI (and therefore not overlapping with the Draft Order Limits). Any surviving peat deposit could preserve significant paleoenvironmental remains with the potential to provide information on past changes in habitats and land-use, and on patterns of environmental change and human activity. Any such remains, if present, and depending on their state of preservation, are assumed to be of Medium to High Sensitivity.
ILPN001	Semi-parallel linear features potentially linked to historical farming.	Non-designated Asset	Low: If their nature is confirmed, the remains are considered to have archaeological value in the information they might contain relating to land management and land use. These remains are non-designated and are assumed to be of Low Sensitivity.
ILPN002	Linear earthworks potentially to the construction, operation, or demolition of Parkside Colliery	Non-designated Asset	Low: If their nature is confirmed, the remains are considered to have limited archaeological value in the information they might contain relating to modern construction activities. These remains are non-designated and are assumed to be of Low Sensitivity.
ILPN003			
ILPN004			

ID number	Description	Designation	Preliminary Sensitivity
ILPN005	Potential ridge-and-furrow	Non-designated Asset	Low: If their nature is confirmed, the remains are considered to have archaeological value in the information they might contain relating to land management and land use. These remains are non-designated and are assumed to be of Low Sensitivity.
ILPN006			
ILPN007			
ILPN008			
ILPN009	Potential extraction pits	Non-designated Asset	Low: If their nature is confirmed, the remains are considered to have archaeological value in the information they might contain relating to industrial activities. These remains are non-designated and are assumed to be of Low Sensitivity
ILPN010	Possible ring ditch	Non-designated Asset	Medium: If their nature is confirmed, associated surviving deposits are considered to have archaeological value in the information they might contain relating to settlement activities, and land use. These remains are non-designated and are assumed to be of Medium Sensitivity.
ILPN011	Potential extraction pits	Non-designated Asset	Low: If their nature is confirmed, the remains are considered to have archaeological value in the information they might contain relating to industrial activities. These remains are non-designated and are assumed to be of Low Sensitivity
ILPN012			
ILPN013			
ILPN014			
ILPN015			

ID number	Description	Designation	Preliminary Sensitivity
ILPN016			
ILPN017			
ILPN018			
ILPN019			
ILPN020			
ILPN021			
ILPN022			
ILPN023	Earthwork (possible industrial)	Non-designated Asset	Low: If their nature is confirmed, the remains are considered to have archaeological value in the information they might contain relating to industrial activities. These remains are non-designated and are assumed to be of Low Sensitivity
ILPN024	Group of small, rectilinear features	Non-designated Asset	Low: While an interpretation of these potential archaeological features is not possible at this stage, in consideration of the wider archaeological background it is expected that these features may be connected to settlement or agricultural activities. Therefore, their Sensitivity is assumed to be Low.
ILPN025	Cropmarks (possible modern agricultural activities)	Non-designated Asset	Low: If their nature is confirmed, the remains are considered to have archaeological value in the information they might contain

ID number	Description	Designation	Preliminary Sensitivity
			relating to modern agricultural activities. These remains are non-designated and are assumed to be of Low Sensitivity
ILPN026	Cropmarks	Non-designated Asset	Low: While an interpretation of these potential archaeological features is not possible at this stage, in consideration of the wider archaeological background it is expected that these features may be connected to settlement or agricultural activities. Therefore, their Sensitivity is assumed to be Low.
ILPN027	Cropmarks	Non-designated Asset	Low: While an interpretation of these potential archaeological features is not possible at this stage, in consideration of the wider archaeological background it is expected that these features may be connected to settlement or agricultural activities. Therefore, their Sensitivity is assumed to be Low.
ILPN028	Cropmarks (possible ponds)	Non-designated Asset	Low: While an interpretation of these potential archaeological features is not possible at this stage, in consideration of the wider archaeological background it is expected that these features may be connected to settlement or agricultural activities. Therefore, their Sensitivity is assumed to be Low.
ILPN029	Cropmarks	Non-designated Asset	Low: While an interpretation of these potential archaeological features is not possible at this stage, in consideration of the

ID number	Description	Designation	Preliminary Sensitivity
			wider archaeological background it is expected that these features may be connected to settlement or agricultural or activities. Therefore, their Sensitivity is assumed to be Low.

Potential for unknown buried heritage assets

- 13.61 Frequent, and intensive agricultural activities such as ploughing and soil preparation, often involves a constant stripping of the land . These activities, along with extensive field consolidation and the use of heavy agricultural machinery have likely contributed to the partial or complete removal of any buried deposit in some areas.
- 13.62 Localised impacts on buried heritage deposits are also expected as result of a number of other land management activities, such as the installation of fence lines, the excavation of sumps or drainage ditches and the movement of traffic which may also have locally impacted or disturbed underlying archaeological deposits.
- 13.63 The construction works for the Chat Moss Line running along the northern edge of the Draft Order Limits from west to east would have likely truncated or removed any potential buried heritage remains within the footprint and in close proximity of the railway lines.
- 13.64 Additionally, the development and occupation of farm buildings and cottages within the Draft Order Limits would have likely disturbed, truncated, or removed any potential buried heritage remains within their immediate footprints and surrounding areas.
- 13.65 Nonetheless, the substantially undeveloped and rural nature of the Draft Order Limits suggests a low level of potential truncation coming from any other form of modern development that may have affected any surviving buried heritage deposit. The baseline assessment indicates that there is high potential for archaeological remains of early prehistoric to post-medieval date to survive within the Draft Order Limits.

Further Work

- 13.66 A proportionate programme of non-intrusive survey will be carried out in the areas which have not been yet evaluated, such as the remote highway mitigation options⁵, the Northern Mitigation Area, which encompasses the land to the north of the railway line incorporating land for community use, biodiversity net gain (BNG), public rights of way (PRoW), landscaping and soil management; and the Soils Reuse Area, which encompasses the land to the east of Winwick Lane to be used for the purposes of storage and reuse of soils.
- 13.67 The scope of the non-intrusive survey to be undertaken in the remote highway mitigation

⁵ A preliminary, high-level assessment of the Highway Mitigation Option is presented in Appendix 7.2: Highway Mitigation Options Report.

options, the Northern Mitigation Area, and in the Soils Reuse Area will be proportionate to the expected impact and will be discussed with the Archaeological Advisory Teams to the LPAs and Historic England once additional details of archaeological potential of the highway mitigation options, the Northern Mitigation Area, and in the Soils Reuse Area will be available.

- 13.68 To comply with NPSNN, NPPF and the Local Plans, an appropriate programme of intrusive archaeological evaluation will be carried out to inform the DCO application. This may include trial trenching and/or geoarchaeological boreholes/sampling based on the potential and significance of archaeological assets identified as part of the non-intrusive survey and potentially affected by the Proposed Development. The results of the evaluation will be detailed in a report which will inform the Archaeology ES Chapter, the mitigation measures to be implemented, and the final design of the Proposed Development post DCO being granted.
- 13.69 The scope, methodology and results of the archaeological evaluation will be discussed with the Archaeological Advisory Teams to the LPAs and Historic England to determine the extent and strategy for mitigation, where required. This will be presented in an Outline Written Scheme of Investigation (OWSI).
- 13.70 The Archaeology ES Chapter will be based on the refined design parameters for the Proposed Development and will take into account the management mitigation measures included in the outline Construction Environmental Management Plan (oCEMP). These parameters, and their potential direct and indirect impact will be assessed in greater detail, along with any enhancement that may have a beneficial effect on archaeological deposits.
- 13.71 Where the potential for significant effects in terms of EIA has been identified in this preliminary assessment, consideration has been given to mitigation. Where appropriate, further mitigation has been included and will be outlined in the Archaeology ES Chapter, and in the relevant management plans, including the oCEMP, and will be presented in an Archaeological Management Strategy (AMS).

Future Baseline Conditions

- 13.72 The majority of the draft Order Limits lies within the administrative area of St Helens and is allocated for an SRFI in the adopted St Helens Local Plan (2022)⁶. Therefore, in the absence of ILPN SRFI it could reasonably be expected that an alternative proposal would come forward for this area of land. Any future proposal would have to also go through the planning process and would require similar archaeological investigation and reporting.
- 13.73 If the Proposed Development was not implemented, it is expected that the fields included in the Site allocated draft Order Limits will maintain their current use as predominantly arable land.
- 13.74 Whilst this would prevent any impact arising from the Proposed Development, changes to buried heritage assets may still occur due to the prolonged soil erosion and degradation connected to agricultural activities, such as ploughing, trenching and use of heavy machinery.
- 13.75 It is expected that in the absence of the Proposed Development, the baseline would remain

⁶ As discussed in Chapter 04: Site selection, alternatives and scheme evolution of this PEIR.

as existing, and the currently ongoing detrimental effects on buried heritage assets resulting from soil erosion from agricultural activities will continue.

- 13.76 The non implementation of the Proposed Development would also prevent further archaeological investigations in the area, thus any further beneficial input into the wider understanding of the archaeological landscape of the area.

EMBEDDED MITIGATION MEASURES

- 13.77 In line with the professional standards and guidance for archaeology, and overarching legislation presented in paragraphs 13.4 to 13.9 of this Chapter, the hierarchical approach to mitigation in regards of archaeology will follow the best practice approach of prevent, reduce, offset, or avoid, where possible, any effects through the overall design of the Proposed Development on archaeological assets, the disposition of its elements (prevent), and, subsequently through careful siting of the different elements of the Proposed Development and its required infrastructure (reduce).
- 13.78 Embedded mitigation provides a form of preventative mitigation and will be considered as an integral part of the overall design and locational strategy for the Proposed Development. It is not an 'add-on' measure to mitigate significant environmental effects, but part of the positive and pro-active approach whereby mitigation has been assessed and considered at all stages of the project to prevent or reduce the occurrence of potentially significant environmental effects.
- 13.79 The combination of the DBA and non-intrusive evaluation carried out to date, and the forthcoming intrusive field evaluation via trial trenching will inform the nature and extent of the embedded mitigation required. This will be detailed in the Archaeology ES Chapter and will be designed in consultation with the Archaeology Advisory Teams to the LPAs and presented as part of the Archaeology ES chapter.
- 13.80 The sections of the Northern Mitigation Area designated for ecological mitigation, and the Soils Reuse Area⁷, have the potential to provide additional embedded mitigation measures to offset impacts on any archaeological remains. It is expected that these portions of the Draft Order Limits will be removed from regular agricultural activity such as ploughing and agricultural machines traffic, thereby reducing ongoing disturbance to archaeological assets.

Construction Phase

- 13.81 Ahead of construction of each phase of the Proposed Development, a phase-specific oCEMP will be prepared by the Principal Contractor for that phase. The phase-specific oCEMP will include measures that will seek to avoid, and preserve in situ, where reasonably practicable and appropriate, archaeological assets of particularly high importance and sensitivity, as per NPPF requirements and Historic England guidelines presented in Paragraph 13.4 of this PEIR Chapter.
- 13.82 Requirements for site specific mitigation measures will be discussed with the Archaeology

⁷ As presented in **Chapter 3: the Proposed Development** of this PEIR.

Advisory Teams to the LPAs and Historic England, which are ongoing, and will be presented as part of the Archaeology ES chapter submitted as part of the DCO application.

POTENTIAL EFFECTS PRIOR TO ADDITIONAL MITIGATION

- 13.83 Any new development has the potential to result in direct and indirect impacts on buried heritage assets. Direct impacts include physical actions on surface features or buried heritage remains, that may lead to a total or partial removal of the asset; indirect impacts include those which occur not as a primary consequence of actual project actions but are still induced by the Proposed Development.
- 13.84 The following subheadings set out the results of the preliminary assessment for the construction, operation, and maintenance phases of the Proposed Development.
- 13.85 For the purposes of this PEIR Chapter, the effects to archaeological assets are considered in broad terms in line with the preliminary environmental information available at this stage of the DCO process. The level of understanding in this PEIR chapter will be consolidated through further work to inform the Archaeology ES Chapter and the DCO application, with the archaeological background informed by the forthcoming archaeological evaluation, and the progress on the Proposed Development design.
- 13.86 As discussed in Chapter 1: Introduction of this PEIR, this Chapter has been undertaken in accordance with what are known as ‘Rochdale Envelope’ principles reflecting that the DCO will need to retain flexibility around the internal layout and design of the ILPN SRFI. This means that the DCO application will be similar in concept to an application for outline planning permission. . Therefore, maximum (and, where relevant, minimum) parameters for the Draft Order Limits are applied based on a reasonable worst-case scenario to determine the Significance of Effects, assuming that activities that have the potential for effects on archaeological assets could take place anywhere on the Order Limits.
- 13.87 **Appendix 13.1: Archaeological DBA** presents a thorough review of the expected impacts arising from the Proposed Development in the different sections of the draft Order Limits.
- 13.88 The potential for effects on buried heritage assets to be significant as result of groundwork activities during the construction, and operation of the Proposed Development is outlined below. In EIA terms, effects classified as major or moderate are considered ‘significant’. Effects classified as minor or negligible in scale are considered ‘not significant’.

Construction Phase

Defining Impacts

- 13.89 All types of intrusive, below ground works that would occur as part of the Construction Phase for the Proposed Development will have the potential to negatively impact on any surviving buried heritage asset within their footprint, potentially leading to permanent and irreversible truncation, compaction, full or partial loss of archaeological remains or deposits.
- 13.90 Additionally, displacement and compaction may occur as secondary effects of non-intrusive

works during the construction phase, such as heavy machinery traffic and temporary spoil stockpiling.

- 13.91 These effects will be fully quantified and assessed as part of the Archaeology ES Chapter, and informed by further refinement of the Proposed Development and its construction activities. At this stage, it is not expected that compaction and/or displacement as secondary effects of non-intrusive works during the construction phase will have a significant effect on archaeological receptors.
- 13.92 It is not considered that traffic or access for heavy machinery and the associated weight loading/ vibration for the construction operations of the Proposed Development may cause impacts on buried heritage assets that are in excess of the impacts arising from the current agricultural activities on the Draft Order Limits, including the use of farm/agricultural machines. If needed, additional mitigation measures can be considered to mitigate temporary, indirect effects, such as localised use of gravel and track mats to distribute the weight of heavy machinery, to offset any impact arising from ground loading. This will be discussed as part of the Archaeology ES Chapter, following further archaeological evaluation.
- 13.93 As concluded in Chapter 14: Surface water and flood risk, and Chapter 15: Geology, soils and contaminated land of this PEIR, it is not expected that the Proposed Development will permanently alter the geology or the groundwater levels within the Draft Order Limits or in its immediate surroundings, and any indirect effects will be temporary and reversible. Therefore, at the current stage of design and based on professional opinion, it is considered there will be no significant indirect impacts on buried heritage deposits within the Draft Order Limits or the wider Study Area. It is expected that all potential indirect effects would be mitigated through the combined programme of embedded mitigation and additional mitigation measures presented in this Chapter and fully presented in the forthcoming Archaeology ES Chapter.
- 13.94 All impacts on buried heritage assets comprising the removal, disturbance, compaction and/or displacement of the asset or parts of the asset have to be considered adverse, direct, permanent, and irreversible.

Main Site

- 13.95 The following indicative effects arising from the activities presented in **Chapter 3: The Proposed Development** of this PEIR have the potential to affect buried remains during the demolition and construction phases within the Main Site:
- piling, earthworks and ground re-profiling, site clearance and demolition activities;
 - new construction access, roads and rail connections;
 - below ground obstruction clearance prior to construction, such as the removal of existing utilities;
 - strategic hard and soft landscaping, and habitat creation;
 - excavation of foundations for new energy centre(s);

- cabling associated with the new electricity substations; and
- construction of warehouse, including ancillary buildings, car parks, storages, utility compounds, and drainage features/ and utilities.

13.96 At the current understanding of the archaeological background, and before additional intrusive evaluation work, it is expected a **High** Magnitude of Effect upon the following known archaeological assets identified in Table 13.7 of this PEIR Chapter. In consideration of the Sensitivity attributed to the individual assets, the potential effects considering the embedded mitigations as discussed in Paragraphs 13.77 to 13.82, prior to additional mitigation, is as follows:

- possible ring ditch cropmark (MME9366) – **Moderate (Adverse)**;
- possible location of a barrow (MME9338) – **Moderate (Adverse)**;
- former sites of farmsteads/barns (MME9323, MME9329, MME19659, MME19660, MME9317, MME9361, MME9312, MME9362, MME19661, MME9339, MME9365, MME15014) – **Minor (Adverse)**;
- possible post medieval field boundaries (MME9360, MME9367) – **Moderate (Adverse)**;
- former site of Newton Park, Newton-in-Makerfield (14th c.) (MME9311) – **Moderate (Adverse)**;
- semi-parallel linear features potentially linked to historical farming (ILPN001) – **Moderate (Adverse)**;
- potential ridge-and-furrow (ILPN005-ILPN008) – **Moderate (Adverse)**;
- possible ring ditch (ILPN010) – **Moderate (Adverse)**;
- potential extraction pits (ILPN009, ILPN011-ILPN022) – **Moderate (Adverse)**;
- earthwork - possible industrial origin (ILPN023) – **Moderate (Adverse)**;
- group of small, rectilinear features (ILPN024) – **Moderate (Adverse)**; and
- cropmarks (ILPN025, ILPN026, ILPN027, ILPN028, ILPN029) – **Moderate (Adverse)**.

Western Rail Chord

13.97 The following activities presented in **Chapter 3: The Proposed Development** of this PEIR have the potential to affect buried remains during the construction phases within the Western Rail Chord:

- linear earthworks potentially to the construction, operation, or demolition of Parkside Colliery (ILPN002, ILPN003, ILPN004) – **Moderate (Adverse)**;
- construction activities for the Western Rail Chord, and associated facilities; and

- construction activities for the access route to the Newton Park Farm.

13.98 At the current understanding of the archaeological background, and before additional intrusive evaluation work, it is expected a **Medium** Magnitude of Effect upon the following known archaeological assets identified in Table 13.7 of this PEIR Chapter. In consideration of the Sensitivity attributed to the individual assets, the potential effects considering the embedded mitigation as discussed in Paragraphs 13.77 to 13.82, prior to additional mitigation, is as follows:

- Battle of Winwick (also known as Battle of Red Bank) NLE: 1412878 – **Moderate (Adverse)**.

Northern Mitigation Area

13.99 The following activities presented in **Chapter 3: The Proposed Development** of this PEIR have the potential to affect buried remains during the construction phases within the Northern Mitigation Area:

- limited landscaping, including tree belts, and creation of screening bunds;
- habitat creation;
- creations of new Public Right of Way and linkages;
- ecological Mitigation, comprising the creation and enhancement of habitat areas;
- limited ground modelling involving limited raising increases in levels; and
- water and water management features, such as drainages, swales, water ditches, and ponds.

13.100 While the works proposed in the Northern Mitigation Area are less invasive compared to the Main Site, they may still result in a **Low** to **Medium** Magnitude of impact on archaeological assets, particularly where topography is altered or features requiring deep excavations such as drainage ditches, swales and ponds are introduced. Tree planting and wetland creation could disturb shallow or buried archaeological features and/or deposit, and moderate impacts may occur in ecological buffer zones.

13.101 In consideration of the Sensitivity attributed to the individual assets presented in Table 13.7 of this PEIR Chapter, and considering the embedded mitigations as discussed in Paragraphs 13.77 to 13.82, the potential effects prior to additional mitigations, is as follow:

- Potential ancient extent of the Highfield Moss SSSI (MGM5816)⁸ – **Minor to Moderate (Adverse)**.

⁸ As discussed in Table 13.7 of this PEIR Chapter, the potential extent of the Highfield Moss SSSI as represented in the HER, marks the location of the potential ancient extent of the Highfield Moss SSSI. It is likely that, outside of the current SSSI Moss area, much of the former peat cover has been removed, drained and converted to agricultural use in the historic period.

Soils Reuse Area

13.102 The following activities presented in **Chapter 3: The Proposed Development** of this PEIR have the potential to affect buried remains during the construction phases within the Soils Reuse Area:

- Temporary storage and placement/export of topsoil.

13.103 The proposed activity in the Soils Reuse Area are expected to have a **Low** Magnitude of impact on archaeological assets limited to localised effects from potential ground compaction. In consideration of the Sensitivity attributed to the individual assets presented in Table 13.7 of this PEIR Chapter, and considering the embedded mitigation options as discussed in Paragraphs 13.79 to 13.84, the potential effects prior to additional mitigation, is as follow:

- Possible Ponds (MCH8802) – **Negligible to Minor (Adverse)**; and
- Potential archaeological associated with the manor of Kenyon, 13th c. (MCH25334) – **Minor (Adverse)**.

Eastern Off-Site Planting Area

13.104 The following activities presented in **Chapter 10: Landscape and visual effects** this PEIR have the potential to affect buried remains during the construction phases within the Eastern Off-Site Planting Area:

- Limited landscaping, including limited tree belts.

13.105 The proposed activity in the Eastern Off-Site Planting Area is expected to have a **Low** Magnitude of impact on shallow archaeological assets associated with very limited below ground impacts arising from tree rooting and the limited landscaping. At the current stage, there are no known archaeological assets within the Eastern Off-Site Planting Area .

Operational Phase

13.106 In line with the Planning Inspectorate response to Scoping Request, it is not expected that the Operational Phase (including maintenance activities) of the Proposed Development will result in any further intrusive ground activities beyond those associated with the Construction Phase. Therefore, direct, and indirect impacts to known and unknown buried heritage remains are not expected during the Operational Phase.

PROPOSED ADDITIONAL MITIGATION MEASURES

13.107 Where assets of lesser importance have been identified, or if the embedded mitigation measures cannot be applied or are deemed not sufficient, and significant effects in EIA terms to archaeological assets is likely to occur, a localised programme of archaeological mitigation (preservation by record) will be implemented to offset any significant impact on the archaeological assets identified. The type, extent, and timing of the mitigation would be dependent on the significance of the asset, and on the expected impact resulting from the

construction activities of the Proposed Development.

13.108 The Archaeological Mitigation Strategy (AMS) will outline the scope, timing and method for the archaeological mitigation work to be carried out. It will be discussed and agreed with the relevant stakeholders and will be informed by ongoing consultation with the Archaeological Advisors the LPAs and Historic England, by the results of the DBA and by the forthcoming field evaluation.

13.109 The AMS will be secured by a DCO Requirement in accordance with NPSNN and the NPPF and will set out the objectives for the archaeological mitigation and the mechanisms for the appointed archaeological contractors to design and program the fieldwork, undertake evaluation, mitigation, analysis, reporting and archiving.

13.110 It is expected that the majority of the archaeological site-based work would be undertaken prior to the commencement of any works or activities with potential for below-ground effects on archaeological assets in each Phase. Archaeological mitigation works may be carried out when appropriate during the Construction Phase in agreement with the Archaeology Advisory Teams to the LPAs and Historic England.

13.111 It is expected that the following industry-wide recognised archaeological mitigation measures will be included in the AMS and will be applied to as forms of control and mitigation over any potential impact on buried heritage assets, depending on their significance and the extent of the Proposed Development's impacts:

- Preservation in Situ: In line with NPPF, the relevant professional guidance and best practice, avoidance of buried heritage assets of high Sensitivity (as presented in Table 13.7 of this PEIR Chapter) will be applied when reasonably practical and appropriate. This consists in the exclusion of discrete, identified area(s) of buried archaeological remains (and an appropriate protective 'buffer') from the works associated with the Proposed Development, which will be defined as Areas of Archaeological Constraint (AAC).
- Archaeological Excavation or Strip, Map and Record Excavation or detailed excavation, to a level commensurate with the significance of the asset and the impact arising from the Proposed Development prior to the construction works, targeting the affected assets identified during the DBA, geophysical survey and forthcoming trial trenching evaluation.
- A programme of archaeological monitoring and recording may be undertaken during the construction works.

13.112 Mitigation and subsequent public dissemination of the results would be an appropriate strategy to offset the adverse effects (defined pre-mitigation) on archaeology, if found to survive within the Proposed Development.

13.113 A further review of the AMS to be implemented during the different phases of the Proposed Development, and how these will be applied to the different archaeological receptors will be included in the Archaeology ES Chapter, when there more information about the actual archaeological survival on site (via field evaluation) and the extent of the impacts of the

Proposed Development can therefore be fully assessed.

RESIDUAL ENVIRONMENTAL EFFECTS

13.114 All impacts on archaeological assets comprise the removal or disturbance of the asset or parts of the asset and have to be considered adverse, direct, permanent, and irreversible.

Construction Phase

13.115 Where archaeological assets are preserved in situ within parts of the draft Order Limits where the form of development which will not disturb them, no residual effect will occur.

13.116 Where archaeological assets are disturbed and are, therefore, preserved by record, there will still be a residual effect, in that the asset will have been damaged or destroyed (or otherwise suffered loss) as a result of the Proposed Development's construction.

13.117 Considering the Sensitivity of the receptors, the Magnitude of Effects arising from the Proposed Development can be successfully mitigated by a combination of embedded environmental measures and a proportionate and targeted archaeological mitigation. This would reduce the residual Significance on Effect or archaeological assets to Minor (Adverse) or Negligible, which are considered Non-Significant in EIA terms.

13.118 The presence and sensitivity of currently unknown archaeological receptors which could be impacted upon by the Proposed Development, particularly in areas where built development is proposed, will be further clarified by the results of the trial trenching evaluation fieldwork and discussed in the Archaeological ES Chapter.

13.119 Table 13.8 presents the expected residual environmental effects on archaeological assets identified at this stage of the assessment, informed by the current understanding of the Proposed Development, based on desk-based research and LiDAR and geophysical surveys.

Operation Phase

13.120 In light of what is discussed in Paragraph 13.78, no residual environmental effects are expected for the Operation Phase.

CUMULATIVE AND IN-COMBINATION EFFECTS

13.121 The Zone of Influence (ZOI) for archaeology is identified at 1km to align with the scope of this PEIR Chapter. Cumulative effects on archaeological assets can occur during construction where areas of archaeology or contiguous or contemporaneous archaeology assets are affected by more than one development footprint. For such effects to occur development footprints need to overlap or be adjacent and where this is not the case the distance of separation is such that the inter-project development proposal can be scoped out of any cumulative assessment for this aspect of the historic environment topic.

13.122 Additionally, it is possible that different developments within a Study Area may have the

potential to harm similar remains (both in terms of archaeological significance and cultural/historical association) even if not adjacent. This includes also the potential for fragmentation and isolation from surroundings.

13.123 As such, the following developments shown in Figure 20.4 are considered as having potential for cumulative effects with the Proposed Development on the Registered Historic Battlefield of Winwick (NLE: 1412878; MME13856):

- Planning application ref. P/2023/0341/RES – CS1
- Planning application ref. P/2024/0419/HYEIA – CS2

13.124 Due to the location of the allocated sites LP1 and LP2 which are partially located within the draft Order Limits, it is anticipated that any below-ground effect arising from the construction works within the allocated site may have potential for cumulative effects on archaeological assets. As discussed in paragraph 13.121, cumulative effects associated with overlapping developments can arise where the works taking place with one development are different to those associated with the other but are taking place within the same footprint, and potentially affecting the same archaeological assets. However, in relation to allocated sites LP1 and LP2, the potential for a cumulative effect to occur is considered low.

13.125 In consideration of the current understanding of the archaeological baseline, and before further evaluation work, the distance between the Proposed Development and the other developments included in the list of Cumulative Schemes included in Appendix 20.1 is considered sufficient to avoid instances of fragmentation and isolation from surroundings arising from archaeological assets being affected by more than one scheme. A further review will be carried out as part of the Archaeology ES Chapter, after the results of the intrusive archaeological evaluation are available.

13.126 It is also anticipated that any other direct or indirect impact arising from construction activities relating to other developments will be assessed by the relevant LPAs, and adequate mitigation will be implemented. Therefore, while the development listed in paragraphs 13.121 and the allocated sites discussed in paragraphs 13.122 are considered to have potential for cumulative effects with the Proposed Development, it is not expected such effects to be greater than the predicted effects arising from any individual development, which will be assessed and mitigated separately, in line with the current overarching policies and legislation.

13.127 A well-designed project correctly assessed and mitigated has the indirect potential benefit of enhancing the understanding of the archaeological background within the draft Order Limits using information and results of archaeological interventions resulting from all developments.

IMPLICATIONS OF CLIMATE CHANGE

13.128 It is anticipated that archaeological assets within the footprint of the Proposed Development will be removed as part of archaeological mitigation through excavation and recording. Therefore, no further effects resulting from climate change are expected.

- 13.129 In the event of archaeological assets selected for preservation in situ as preferred mitigation, any impact arising from climate change will have to be assessed and mitigated according to the nature, material, and potential change to the current environment of the buried heritage asset(s) selected for such mitigation. This will be discussed as part of the oCEMP and secured through a DCO requirement.
- 13.130 At this stage, it is not expected that the combined effects of future climate change and environmental changes associated with the Proposed Development will result in any significant impact beyond those caused by climate change alone.

SUMMARY AND CONCLUSIONS

- 13.131 This chapter has assessed the likely significant environmental effects of the Proposed Development upon archaeology. A Study Area of 1km radius from the Draft Order Limits has been used to identify designated and non-designated archaeological assets which may be affected by the Proposed Development. This Study Area was agreed with relevant stakeholders, local authorities and the Planning Inspectorate during a process of EIA Scoping.
- 13.132 This assessment has been informed by desk-based research including review of relevant Historic Environment Records, Aerial Photography, LiDAR, local archives resources, geophysical survey carried out to date, historical maps and site reports. It has considered legislation, policy and professional guidance, and has assessed the Proposed Development is assessed against the Infrastructure Planning (Decisions) Regulations 2010, the NPSNN (2024), the NPPF (December 2024, as amended February 2025) and relevant local planning policy.
- 13.133 Likely significant effects on archaeological receptors are only anticipated during the construction phase of the Proposed Development, where below-ground works and landscape and ground modelling activities may result in a Medium to High Adverse Magnitude of Effects on any surviving archaeological remains.
- 13.134 Embedded mitigation measures, such as preservation in-situ, may be implemented where reasonably practicable and appropriate, to mitigate adverse effects on archaeological assets of particularly high importance and sensitivity which could experience major or moderate adverse effects resulting from any phase of the Proposed Development.
- 13.135 Where assets of lesser importance have been identified, or if the embedded mitigation measures cannot be applied or are deemed not sufficient, and direct impact to archaeological assets is likely to occur, a localised programme of archaeological mitigation (preservation by record) will be implemented to offset any impact on the archaeological assets identified. The type, extent, and timing of the mitigation would be dependent on the significance of the asset, and on the expected impact resulting from the construction activities of the Proposed Development.
- 13.136 Therefore, it is anticipated that, with the adoption of mitigation measures, the Proposed Development will result in no significant residual environmental effects on archaeological receptors.

- 13.137 In addition to the evaluation work carried out to inform this PEIR Chapter, a proportionate programme of both non-intrusive and intrusive archaeological evaluation will be carried out within the Draft Order Limits to inform the DCO application and the Archaeology ES Chapter. This may include trial trenching, walkover survey and geoarchaeological modelling, based on the potential and significance of the archaeological assets identified, and on the design of the Proposed Development.
- 13.138 In line with the Planning Inspectorate response to Scoping Request, it is not expected that the operational phase (including maintenance activities) of the Proposed Development will result in any further intrusive ground activities beyond those associated with the construction phase. Therefore, direct, and indirect impacts to known and unknown buried heritage remains are not expected during the operational phase

Table 13.8 Summary of effects

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Main Site						
Construction Phase						
Huskisson Memorial (NLE: 1075900)	High	N/A	No below ground activities are proposed in the immediate proximities of the Huskisson Memorial ⁹	N/A	None	N/A
Battle of Winwick (also known as Battle of Red Bank), 1648 (NLE: 1412878)	High	Medium (Adverse)	Damage/loss of archaeological remains	Avoidance/Preservation by record	Minor Adverse	Not Significant
Possible ring ditch cropmark (MME9366)	Medium	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant

⁹ Impact of the setting of the Huskisson Memorial are considered and assessed in PEIR Chapter XX: Cultural heritage

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Possible location of a barrow (MME9338)	Medium	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Former site of Highfield Farm	Very Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Negligible	Not Significant
Former site of Highfield Farm (non-extant) (MME9323)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
Highfield Farm barn (non-extant), 17th c. (MME9329)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
Former site of Parkside Farm (non-extant), 18th c. (MME19659)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Former site of a building, Parkside Road (non-extant), 18th c. (MME19660)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
Former the Stables, Parkside Road (non-extant), 18th c. (MME9317)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
Former site of a house, Barrow Lane, Newton-in-Makerfield (non-extant), 18th c. (MME9361)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
Former site of a house, Parkside Road (non-extant), 18th c. (MME9312)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Former site of Barrow Lane Cottages (non-extant), 18th c. (MME9362)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
Former site of a building, Rough Farm (non-extant), 18th c. (MME19661)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
Former site of a barn at Rough Farm (non-extant), 19th c. (MME9339)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
Former site of Rough Cottage (non-extant), 18th c. rebuilt in the 19th c. (MME9365)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Possible post medieval field boundaries (MME9367)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Possible post medieval field boundaries (MME9360)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Former site of Newton Park, Newton-in-Makerfield (14th c.) (MME9311)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Possible site of a house (MME15014)	Very Low	High (Adverse)	Damage/loss of archaeological remains	Not required	Negligible	Not Significant
The manor of Kenyon, 13th c., either demolished or extensively rebuilt in the first	Medium	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
half of the 19th c., as a farmhouse to the associated farmstead (MCH25334)						
Potential ancient extent of the Highfield Moss SSSI (MGM5816)	Medium to High	Low to Medium (Adverse)	Compaction Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Possible Ponds (MCH8802)	Low to Medium	Low (Adverse)	Compaction	Not required	Negligible	Not Significant
Semi-parallel linear features potentially linked to historical farming (ILPN001)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Linear earthworks potentially to the construction, operation, or demolition of	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Parkside Colliery (ILPN002-ILPN004)						
Potential ridge-and-furrow (ILPN005-ILPN008)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Potential extraction pits (ILPN009)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Possible ring ditch (ILPN010)	Medium	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Potential extraction pits (ILPN011-ILPN022)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Earthwork-possible industrial origin (ILPN023)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Group of small, rectilinear features (ILPN024)	Low	High (Adverse)	Damage/loss of archaeological remains	Avoidance/Preservation in Situ Preservation by record	Minor Adverse	Not Significant
Cropmarks – possible modern agricultural activities (ILPN025)	Low	High (Adverse)	Damage/loss of archaeological remains	Preservation by record	Minor Adverse	Not Significant
Cropmarks (ILPN026)	Low	High (Adverse)	Damage/loss of archaeological remains	Avoidance/Preservation in Situ Preservation by record	Minor Adverse	Not Significant
Cropmarks (ILPN027)	Low	High (Adverse)	Damage/loss of archaeological remains	Avoidance/Preservation in Situ Preservation by record	Minor Adverse	Not Significant
Cropmarks – possible ponds	Low	High (Adverse)	Damage/loss of archaeological remains	Avoidance/Preservation in Situ	Minor	Not Significant

Receptor	Receptor sensitivity	Magnitude of effect	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
(ILPN028)				Preservation by record	Adverse	
Cropmarks (ILPN029)	Low	High (Adverse)	Damage/loss of archaeological remains	Avoidance/Preservation in Situ Preservation by record	Minor Adverse	Not Significant
Unknown buried heritage deposits	Unknown	High (Adverse)	Damage/loss of archaeological remains	Avoidance/Preservation in Situ Preservation by record	To be determined	To be determined