HyNet North West Hydrogen Pipeline

Delivering clean growth

Cadent

Your Gas Network

Appendix 5C

UKHab Survey Report

October 2024

Revision 1
Volume 0001
Document ref. 852552-WSPE-IA-ES-RP-B8-506748

Contents

1. Introduction 3

1.1. Project Background 3
1.2. Brief Scope and Objectives 4
1.3. Relevant Legislation and Policy 4

2. Methodology 6

2.1. Desk Study 6
2.2. UK Habitat Classification Survey 6
2.3. Constraints 10

3. Results 13

3.1. Habitats 13
Habitat Summary 13

3.2. Protected Species 97
Badger 98
Otter and Water vole 99
Bats 101
Dormouse 103
Breeding birds (Schedule 1 species only) 103
Wintering birds 107
Reptiles 108
Great crested newts 110
Terrestrial invertebrates 112
SPI and other conservation notable vertebrate species 114
Fish 114
Invasive non-native species 114

4. Summary 115

4.1. Habitats 115
4.2. Species 115

Table 5C 3.1 Summary of habitats throughout land within the Preliminary Order Limits of the western corridor and associated spurlines 14
Table 5C 3.2 Summary of habitats throughout land within the Preliminary Order Limits of the southern corridor 35
Table 5C 3.3 Summary of habitats throughout land within the Preliminary Order Limits of the eastern corridor and associated spurlines 44
Table 5C 3.4 Summary of habitats throughout land within the Preliminary Order Limits of the northern corridor 63
Table 5C 3.5 Summary of habitats throughout land within the Preliminary Order Limits of the northern spurlines 72
Table 5C 3.6 Summary of habitats throughout land within the Preliminary Order Limits of the Central Hub 94
Table 5C 3.7 Summary of habitats suitable for badger throughout land within the Preliminary Order Limits 98
Table 5C 3.8 Summary of habitats suitable for otter and water vole throughout land within the Preliminary Order Limits 99
Table 5C 3.9 Summary of habitats suitable for roosting, foraging and commuting bats throughout land within the Preliminary Order Limits 101
Table 5C 3.10 Summary of habitats suitable for breeding birds throughout land within the Preliminary Order Limits 104
Table 5C 3.11 Summary of habitats suitable for wintering birds throughout land within the Preliminary Order Limits 107

Table 5C 3.12 Summary of habitats suitable for reptiles throughout land within the Order Limits 109
Table 5C 3.13 Summary of terrestrial and aquatic habitats suitable for great crested newts throughout land within the Preliminary Order Limits 110
Table 5C 3.14 Summary of habitats suitable for terrestrial invertebrates throughout land within the Preliminary Order Limits 113

Annex 5C 1 Legislation
Annex 5C 2 Policy
Annex 5C 3 Species Scientific Names
Annex 5C 4 Watercourse Priority Status
Annex 5C 5 Figure 5C.1: UKHab Survey Results

1. Introduction

1.1. Project Background

1.1.1. WSP was commissioned by Cadent Gas Limited (Cadent) to undertake a Preliminary Ecological Appraisal (PEA)[1] in 2022 and 2023 for the HyNet North West Hydrogen Pipeline (hereafter referred to as 'the Project'). Cadent (the Applicant) is applying to the Secretary of State for a Development Consent Order (DCO) to construct, operate, and maintain a new underground hydrogen pipeline of approximately 100km in length. The Project can be split into five distinct areas, comprising four pipeline corridor routes and the Central Hub, an area where the four corridor routes meet which cannot be associated with any specific route.

1.1.2. Please note that as part of the design process, the order limits have undergone a number of iterations (as described in **Appendix 2A: Design evolution** of the Draft ES) and this report is based on the Preliminary Order Limits as considered in the Preliminary Environmental Information Report (PEIR) published in September 2022.

1.1.3. Three of the corridors have several spurlines associated with them, and throughout the report these are described in conjunction with the corridors. Pipeline corridors are as follows:

- 'Western Corridor' Line 1 West Corridor – Stanlow HPP HAGI to Central Hub HAGI;
- 'Southern Corridor' Line 2 South Corridor – Central Hub HAGI to Inovyn HSF HAGI;
- 'Eastern Corridor' Line 3 East Corridor – Central Hub HAGI to Partington HAGI; and
- 'Northern Corridor' Line 4 North Corridor – Central Hub HAGI to Clock Face HAGI.

1.1.4. The Preliminary Order Limits are shown on **Figure 5C. 1**.

[1] Please note that in the Preliminary Environmental Information Report (PEIR), the scope of this report is referred to as Extended Phase 1 Habitat Survey. However, this terminology is now superseded by the current Guidelines for Preliminary Ecological Appraisal issued by the Chartered Institute of Ecology and Environmental Management CIEEM (2017) and therefore the title and terminology if this report have been updated accordingly.

1.2. Brief Scope and Objectives

1.2.1. A PEA was carried out to meet the brief which included an ecological desk study and UK Habitat Classification (UKHab) survey and assessment for potential to support protected and notable species of land within the Preliminary Order Limits. The aim is to identify potential nature conservation constraints, assist with the scope of future surveys, and inform embedded environmental measures within the Project. This report provides a summary of the desk study data gathered to date (**Section 2.1)**; the methods and results of the UKHab survey (**Section 2.2 and 3.1)**; protected species assessment (**Section 3.2)** and summarises the findings (**Section 4)**. The approach follows the Guidelines for Preliminary Ecological Appraisal[2].

1.2.2. This report is based on information about the Project provided by the Applicant, which has been used to identify an appropriate geographical scope for the desk study, UKHab survey and habitat-based assessment for the potential of land within the Preliminary Order limits to support protected and notable species, based on an initial assessment of the likely environmental changes associated with construction and operation of the Project.

1.3. Relevant Legislation and Policy

1.3.1. The appraisal has been compiled with reference to the following relevant nature conservation legislation and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in England. A full summary of the legislation is found within **Annex 5C 1**.

- The Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- Countryside and Rights of Way Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006 (England);
- The Protection of Badgers Act 1992;
- The Hedgerow Regulations 1997;
- The Wild Mammals (Protection) Act 1996; and
- The Environment Act 2021.

[2] CIEEM (2017). Guidelines for Preliminary Ecological Appraisal. Chartered Institute of Ecology and Environmental Management, Winchester.

1.3.2. The survey has been carried out with reference to the following planning policy (both national and local). A summary of each is provided within **Annex 5C 2**.

- The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC and DEFRA, 2012);
- Environmental Improvement Plan 2023;
- UK Biodiversity Action Plan (UKBAP) (JNCC BRIG, 2008);
- The National Planning Policy Framework (NPPF) 2021 (Ministry of Housing Communities & Local Government, July 2021); and
- Local policy/plans (detailed in **Annex 5C 2**).

2. Methodology

2.1. Desk Study

2.1.1. A desk study was undertaken in Spring 2022 and the methodology for this is set out in Section 5.5 and Table 5.8 of the PEIR. The desk study recorded the presence of statutory designated sites within up to 20km[3] of the Preliminary Order Limits (Section 5.6.1, Table 5.10, and Figure 5.1 of the PEIR) and non-statutory designated sites within 2km (Section 5.6.2, Table 5.11, and Figure 5.2 of the PEIR). The desk study also recorded the presence of Habitats of Principal Importance (HPI) within 2km of the Preliminary Order Limits (Section 5.6.3., Table 5.12 and Figure 5.3 of the PEIR). Records of protected and notable species within 2km of the Preliminary Order Limits are discussed within section 5.6.12 - 5.6.41 of the PEIR.

2.1.2. The desk study information from the PEIR is not repeated in this report or discussed further. The desk study will be updated for the Environmental Statement following design freeze for the Project.

2.2. UK Habitat Classification Survey

2.2.1. The UK Habitat Classification, hereafter referred to as UKHab[4], is a comprehensive habitat classification system which aims to allow ecologists in the field to map habitats in a consistent and unified way. The classification includes terrestrial, freshwater and coastal habitats and comprises a principal hierarchy of Primary Habitats, including ecosystems, broad habitats, Priority Habitats (hereafter referred to as HPI, except where part of a habitat name) and Annex 1 habitats, as well as non-hierarchical Secondary Codes.

2.2.2. The UKHab survey encompassed the land within the Preliminary Order Limits (where accessible), and this is referred to as the Survey Area. Survey was also undertaken outside of the Preliminary Order Limits in areas which have since been removed due to design refinement and pipeline route changes, however, those results are not included in this report.

2.2.3. UKHab survey of the land within the Preliminary Order Limits (where access was permitted and possible) was undertaken during 2022 and 2023 as part of the following site visits:

[3] Dependent on reasons for designation; within 2km for habitats, extending to 10km for bats, and up to 20km for ornithological interest for international sites.

[4] Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *The UK Habitat Classification User Manual Version 1.1* at http://www.ukhab.org/.

Survey Year	Survey Month	Survey Dates
2022	March	15th – 18th.
	April	6th, 28th – 29th.
	May	3rd – 5th, 9th – 10th, 17th – 20th, 30th.
	June	1st, 6th – 8th, 13th – 16th, 21st – 22nd.
	July	12th – 14th.
	August	2nd, 10th – 12th, 15th, 25th – 26th.
	September	5th – 9th, 13th – 15th, 21st – 23rd, 29th.
	October	24th – 28th.
	November	7th, 15th – 18th, 22nd – 25th, 28th – 30th.
	December	6th – 8th.
2023	February	13th – 17th, 20th – 24th, 27th – 28th.
	March	1st – 3rd, 7th – 10th, 14th – 17th, 29th – 31st.
	May - June	2nd – 5th, 9th – 12th, 15th – 19th, 23rd – 25th, 29th – 2nd June.

2.2.4. The surveys took place over multiple site visits as land access was secured, and repeat surveys were made of some parts of the survey area to account for seasonal variation (e.g., follow up visits to areas where initial visits were undertaken during the suboptimal winter period).

2.2.5. UKHab[5] comprises two major parts; a hierarchical Primary Habitat system and a list of Secondary Codes. The Primary Habitat system consists of five levels:

- Level 1 includes the major ecosystems; terrestrial, freshwater and coastal;
- Level 2 consists of nine ecosystem types such as woodland, grassland, and urban;

[5] UKHab survey was undertaken using version 1.1 which was the most up-to-date version of UKHab at the time of survey. Therefore, all terminology is relevant to this version of UKHab.

- Level 3 consists of 20 broad habitats, corresponding directly with UK Biodiversity Action Plan Broad Habitats;
- Level 4 consists of 80 habitats, including Habitats of Principal Importance;
- Level 5 consists of 104 habitats, including Habitats Directive Annex 1 habitats; and
- Secondary codes are used to provide further details within the Primary Habitats as well as mapping habitat mosaics and complexes and identifying species features. In line with UKHab guidance, secondary codes are mandatory for habitat mosaics, habitat origins and habitat complexes, and have been applied where appropriate. Other secondary codes have been applied where they are important in defining the habitat type (e.g. 910 -allotments or 1030 - sand pit quarry or open cast mine).

2.2.6. Mapping of all land within the Preliminary Order Limits was undertaken to a minimum of Level 4 of the Primary Habitat system, where possible, and secondary codes were noted where appropriate. UKHab methodology is largely concerned with vegetation communities only, but similarly to a Phase 1 Habitat Survey, the survey was 'extended' in accordance best practice guidance[6] to include the following throughout land within the Preliminary Order Limits (subject to access):

- Initial habitat-based assessments of the potential for the Survey Area to support protected or conservation-notable species/species-groups (including, but not limited to: great crested newts; bats; badger; water voles; reptiles; and otters), and record any incidental direct evidence is found. Comprehensive surveys for these species (where relevant) were carried out separately and the results of these surveys are detailed in species-specific reports.
- Preliminary hedgerow assessments, aimed at identifying hedges that might require further survey to confirm if they classify as 'important' under the Hedgerows Regulations 1997[7]. Hedgerow surveys were carried out separately and the results of these surveys are detailed in Appendix 5C Hedgerow Assessment Survey Report.
- The identification of other potential constraints (e.g. non-native invasive plant species) or opportunities (e.g. opportunities for micro-siting to minimise potential impacts, or provide ecological enhancements) that may be present within the Preliminary Order Limits.
- Targeted information on habitat condition[8] to inform the Biodiversity Net Gain (BNG) Assessment (see **Biodiversity Net Gain Report**).

---

[6] Institute of Environmental Assessment (1995). Institute of Environmental Assessment: Guidelines for Baseline Ecological Assessment. Taylor & Francis; London.

[7] UK Government (1997). The Hedgerows Regulations 1997. (Online) Available from: https://www.legislation.gov.uk/uksi/1997/1160/contents/made (Accessed August 2021).

[8] UK Habitat Classification data and opportunities for Biodiversity Net Gain are reported in Biodiversity Net Gain Strategy.

2.2.7. Species are referred to by their common names only in the main body of the report, with scientific names provided in **Annex 5C 3**. For habitats, where relevant, the relative abundance of key plant species is described using the standard DAFOR adjectival terms i.e., a species may be dominant; abundant; common; frequent; occasional; or rare within a given habitat. Additional qualification may be given, for example 'locally dominant'. The relative abundance of habitats throughout each of the corridors and spurlines is also described using the DAFOR scale.

2.2.8. The survey guidance referred to when undertaking habitat-based assessments for key species and species groups are summarised below; it must be noted that the use of these search methods alongside a UKHab survey will not generally confirm that a species is absent, unless otherwise stated, and will not necessarily remove the need for additional species-specific surveys to determine the baseline for assessment or mitigation requirements. The location of key interest features (e.g., potential bat roosts, badger sett entrances, water vole burrows, or mature trees) were recorded using GPS with a hand-held tablet.

- Badger (Harris et al., 1991[9], Roper, 2010[10]);
- Otter (Chanin, 2003[11]);
- Water vole (Dean et al., 2016[12]);
- Bats (Collins, 2016[13] and Mitchell-Jones, 2004[14]);
- Dormouse (English Nature, 2006[15]);
- Birds (winter and breeding) (Gilbert et al., 1998[16] and Bibby et al., 2000[17]);

[9] Harris S, Cresswell P and Jefferies D (1991) (Report) Surveying Badgers. The Mammal Society, Bristol.
[10] Roper (2010) Badger (Collins New Naturalist). HarperCollins, UK.
[11] Chanin P (2003). Monitoring the Otter *Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature, Peterborough.
[12] Dean, M., Strachan, R., Gow, D. and Andrews R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds. Fiona Matthews and Paul Chanin. The Mammal Society, London.
[13] Collins J. (ed.) (2016) Bat Surveys for Professional Ecologists, Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London.
[14] Mitchell- Jones, A.J (2004) Bat Mitigation Guidelines. English Nature.
[15] English Nature (2006). The Dormouse Conservation Handbook. 2nd Edition. Natural England. Peterborough.
[16] Gilbert, G., Gibbons, D.W. and Evans, J. (1998). Bird Monitoring Methods: A Manual of Techniques for Key UK Species. RSPB.
[17] Bibby C.J, Burgess N.D, Hill D.A, Mustoe S.H. (2000) Bird Census Techniques. Second Edition. Elsevier Ltd

- Reptiles (Froglife, 1999[18] and Gent and Gibson, 2003[19]);
- Great crested newt (Gent and Gibson, 2003[19] and English Nature, 2001[20]); and
- Terrestrial invertebrates (Drake et al., 2007[21] and Kirby, P, 2001[22]).

2.2.9. The suitability of habitats to support Species of Principal Importance (SPI) such as European hedgehog, brown hare, common toad and polecat was also assessed.

2.2.10. The potential for habitats to qualify as HPI was noted. A detailed breakdown of the criteria for assessing the status of watercourses to qualify as the HPI Rivers is found in **Annex 5C 4**.

2.2.11. With regard to protected and conservation-notable animal species, habitats are initially defined as being either 'suitable', or 'unsuitable' to support a particular species, where direct evidence of a species is absent. The need for further survey work is then based on additional contextual information (e.g. desk study records; accessibility of land within the Preliminary Order Limits; relative suitability of the habitats in a local context; etc.) moderated by professional experience of similar schemes and habitats.

2.3. Constraints

2.3.1. The survey had the following principal constraints:

- Part of the UKHab survey was undertaken during the winter period due to access limitations during earlier survey periods. The winter period is suboptimal for UKHab survey due to being outside of the main plant growing period. However, the habitat types which were identified during the surveys in the winter period are generally common and widespread, and the survey results are supported by contextual information about habitats in nearby parts of the survey area which were surveyed during the optimal time of year. Follow up survey visits of key areas of habitat (e.g. those that could be significantly different between winter and summer such as grasslands) were made during the optimal spring/summer survey period. Therefore, the habitat information obtained during the winter period is considered to be robust.

[18] Froglife (1999) Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice sheet 10. Froglife, Halesworth.
[19] Gent, A. and Gibson, S. (2003). Herpetofauna Workers Manual. JNCC. Peterborough.
[20] English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature, Peterborough.
[21] Drake CM, Lott DA, Alexander KNA and Webb J (2007). Surveying terrestrial and freshwater invertebrates for conservation evaluation. Natural England Research Report NERR005. Natural England, Peterborough.
[22] Kirby, P. (2001). Habitat Management for Invertebrates: A Practical Handbook. RSPB Management Guides.

- Access constraints due to health and safety reasons, significant physical barriers, such as expanses of wetland habitat, or land access arrangements, were occasionally encountered. Where possible, inaccessible areas were viewed using binoculars during survey, in addition, desk study data and aerial imagery were used to aid classification and a precautionary approach was used with regards to habitat classification where habitats could not be surveyed in detail. A summary of the main areas which have not been surveyed is provided below:
  - Area along western corridor within Frodsham Field Studies Centre LWS (Grid reference: SJ 52595 79261) could not be fully accessed, particularly habitats adjacent to the River Weaver, due to health and safety.
  - Area along western corridor between railway tracks (Grid reference: SJ 47437 75614) could not be fully accessed due to health and safety.
  - Area along southern corridor to the north of River Weaver (Grid reference: SJ 59817 76285) could not be accessed due to land access arrangements.
  - Area along southern corridor (Grid reference: SJ 60195 75230) could not be accessed due to land access land access arrangements.
  - Area along southern corridor (Grid reference: SJ 69330 70246) was not accessed for survey.
  - Area along eastern spurline Partington to Bassel Polyolefins (Grid reference: SJ 73044 91851) could not be accessed due to land access arrangements.
  - Area along northern corridor to the east of Fiddlers Ferry Golf Course (Grid reference: SJ 55825 86827/ SJ 55716 86613) could not be accessed due to land access constraints.
  - Areas within the Preliminary Order Limits which comprised access tracks or roads were mapped predominantly from aerial imagery, particularly where long roads or accesses were present, including on the western corridor (Grid reference SJ 44984 75988) and along the northern spurline Higher Walton to Novelis Latchford (Grid reference: SJ 63788 87694). Only habitats which could be confidently classified into UKHab and do not require condition assessment (such as Developed land; sealed surface) were mapped.
  - Any additions to the Preliminary Order Limits which occurred after the last UKHab (since May 2023) surveys have not been surveyed.
- Approximately 97% of land within the Preliminary Order Limits has been surveyed (including areas that could be mapped from aerial imagery). Areas which were not surveyed are shown on **Figure 5C.1**.
- The survey results represent an ecological snapshot of land within the Preliminary Order Limits at the time of survey. Botanical surveys are seasonally limited, and throughout the spring and summer period certain species will be more or less evident at different times (i.e. depending on the flowering season). However, it is considered that sufficient information was gathered to enable an assessment of the habitat types present, in line with

standard habitat categories and the potential for these to support protected or notable species.

- Access to the interior of structures within the Preliminary Order Limits, such as residential and commercial buildings and outbuildings are not required given that the Project is unlikely to impact any buildings.

2.3.2. These constraints are taken into account when interpreting survey data and it is considered that they do not significantly affect the overall validity or robustness of the survey.

3. Results

3.1. Habitats

3.1.1. A summary of the habitats present within the Preliminary Order Limits of the pipeline corridors and associated spurlines is provided below, with detailed habitat descriptions provided in the following tables. The habitats recorded throughout land within the Preliminary Order Limits are illustrated on **Figure 5C.1.** The habitat summaries in the tables should be read alongside the relevant figures.

Habitat Summary

3.1.2. The western corridor and associated spurlines pass largely through arable and pastoral land and a large section runs adjacent to the River Mersey. The route crosses the River Weaver, the Trent and Mersey Canal and the Weaver Navigation canal. A number of Local Wildlife Sites (LWS) are crossed, some of which have an industrial history. Habitat descriptions for the western corridor and associated spurlines are detailed in **Table 5C 3.1**

3.1.3. The southern corridor and associated spurlines pass largely through arable and pastoral land as well as scattered areas of woodland. The route crosses the River Weaver at two locations and passes to the south of the urban area of Northwich. Habitat descriptions for the southern corridor are detailed in **Table 5C 3.2.** The eastern corridor and associated spurlines pass largely through arable and pastoral land, terminating in a former industrial area which is now disused. The route crosses major roads, including the M6 and M56 and several small watercourses. Habitat descriptions for the eastern corridor and associated spurlines are detailed in **Table 5C 3.3.**

3.1.4. The northern corridor and associated spurlines pass largely through arable and pastoral land, terminating in the urban area of St Helens. A section of the route runs through Moore Nature Reserve LWS which is dominated by woodland. The route crosses large watercourses, including the Manchester Ship Canal and River Mersey, as well as major roads including the M56 and M62. Habitat descriptions for the northern corridor are detailed in **Table 5C 3.4** and associated spurlines in **Table 5C 3.5.**

3.1.5. The Central Hub, which comprises the area where the four corridor routes meet, comprises largely arable land and grassland. Hardstanding, ponds and a small watercourse are also present. Habitat descriptions for the Central Hub are detailed in **Table 5C 3.6.**

Table 5C 3.1 Summary of habitats throughout land within the Preliminary Order Limits of the western corridor and associated spurlines

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
Other neutral grassland (g3c)	Areas of other neutral grassland are occasional within the Preliminary Order Limits of the Stanlow HPP HAGI to Central Hub HAGI corridor, associated with fields, field margins and riverbanks and these support a moderate diversity of grasses and wildflowers. Grasses typically present include cock's foot, fescue sp., perennial ryegrass, Yorkshire fog, brome sp., sweet vernal grass and tufted hair grass. Forbs typically present include herb robert, thistle sp., willowherb sp., ribwort plantain, broad-leaved dock, common knapweed, common vetch, cranesbill sp., common sorrel, square stemmed willowherb, cleavers, dandelion, cow parsley, common nettle and infrequent common reed. There are a small number of medium-sized fields which appear to be largely unmanaged and are dominated by ruderal vegetation and tall herbs. Typically, species present include willowherb sp., common nettle, creeping thistle and mugwort. Where stands of tall herbs are present, secondary code 16 (Tall herb) has been applied. Scattered scrub, including bramble and buddleia are also occasionally present. Where scattered scrub is present, secondary code 10 (scattered scrub) has been applied. Where scattered rushes are present, secondary code 14 (scattered rushes) has been applied. Where rushes are dominant, secondary code 15 (rushes dominant) has been applied.	Habitat not recorded	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
	Other areas within the Preliminary Order Limits which support distinctive neutral grassland communities are described below: • Two fields of rough and tussocky grass on a sloping bank to the south of the Trent and Mersey Canal (Grid reference: SJ 59000 77271). The grassland appears unmanaged and grasses dominate the sward, with cock's foot, bent sp., timothy, perennial ryegrass, and oat grass sp. present. Herbs are frequent and include dandelion, broad-leaved dock, creeping thistle and creeping buttercup with occasional common mouse-ear, common storksbill, red dead nettle, cuckoo flower, common field speedwell, creeping cinquefoil and common vetch. Patches of soft rush and great willowherb are localised and found at the base of the slope in damper areas. Part of this grassland is the location of a trenchless crossing compound to avoid disturbance to the adjacent Trent and Mersey Canal. • An area to the south of the Weaver Navigation (Grid reference: SJ 53314 78845) supporting damp grassland, bounded by ditches and hedgerow. Species richness is low, with dense stands of hard rush comprising approximately 50% of the sward. Ruderal vegetation is abundant, with species including spear thistle, mugwort and great willowherb as well as less frequent rough meadow grass, common ragwort and cow parsley. At least two waterlogged pockets are present, indicated by the presence of bulrush and goat willow stands. This grassland is at the		

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
	location of a trenchless crossing compound to avoid disturbance to the adjacent Weaver Navigation. • Grassland within East Clifton Tip LWS (Grid reference: SJ 53033 79004). This LWS has a history of disturbance however there are no obvious signs of management within the grassland. The grassland lies between lowland mixed deciduous woodland to the north-east and areas of scrub to the south-west. The sward is tussocky with an average of 7 species per m2. Grasses dominate the sward, including sheep's fescue with occasional sweet vernal grass. Field wood rush is abundant in discrete areas. Forbs are occasional and include bird's foot trefoil, common ragwort, spear thistle, dove's foot cranesbill, ivy leaved speedwell and white clover. Bryophytes are abundant.		
Holcus-Juncus neutral grassland (g3c8)	Holcus-Juncus neutral grassland is rare within the Preliminary Order Limits of the corridor (Grid reference: SJ 51697 78557), associated with a field within Frodsham, Helsby and Ince Marshes LWS which is surrounded by cropland but does not appear to be managed or grazed. The sward is dominated by soft rush, hard rush, Yorkshire fog and creeping bent. Other species occasionally recorded include creeping buttercup, common fleabane, creeping thistle, hoary willowherb, ragwort sp., meadow foxtail and marsh orchid.	Habitat not recorded	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
Modified grassland (g4)	Modified grassland is frequent within the Preliminary Order Limits of the corridor and largely associated with grazed pasture or fields used for silage. These are generally bounded by hedgerows, however, towards the western end of the corridor where land is flatter near the River Mersey small groups of adjacent fields are more frequently marked by ditch networks than hedgerows. Within areas of modified grassland, the sward is typically short, with a low species richness. Across all grasslands, perennial ryegrass dominates the sward with occasional Yorkshire fog, meadow foxtail and soft brome and rare sweet vernal grass. Forbs are occasional and often include white clover, creeping buttercup, meadow buttercup, broad-leaved dock, Lady's smock, common hogweed, common chickweed, common nettle, daisy, dandelion, cow parsley, groundsel, shepherd's purse, cleavers, mayweed sp. and geranium sp. Where stands of tall herbs are present, secondary code 16 (Tall herb) has been applied. Some fields within the Frodsham, Helsby and Ince Marshes LWS near the River Mersey support scattered rushes. Where scattered rushes are present, secondary code 14 (scattered rushes) has been applied. Some areas of modified grassland within the Frodsham, Helsby and Ince Marshes LWS are likely to qualify as the HPI Coastal and floodplain grazing marsh. Sward height varies depending on the time of year surveyed and management practices. Areas of modified grassland are also present along road and track verges, arable field margins and discrete parcels within arable fields	Habitat not recorded	Modified grassland is abundant within the Preliminary Order Limits of the Runcorn HAGI to The Heath spurline, associated with horse grazed pasture, road verges and amenity areas, including a golf course. Typically, the sward is short and supports a low number of common species, including perennial ryegrass, fescue sp., Yorkshire fog, white clover, cleavers, daisy and creeping buttercup.

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
	and have a similar character and species composition to those described above. Where mosses comprise the dominant ground cover in grasslands, secondary code 164 (wet moss lawns) has been applied.		
Wet woodland (w1d)	Wet woodland is rare within the Preliminary Order Limits of the corridor and present at: • Wet woodland within Frodsham Field Studies Centre LWS (W_1170nd lies within an area dominated by wetland habitat, surrounded by reedbed and other swamps. Semi-mature to mature alder, goat willow and crack willow are dominant, with young silver birch, wild cherry, and sycamore also present. The field layer is sparse and mainly comprises leaf litter, with some bramble, common nettle, teasel, buddleia, willowherb sp., common hogweed, creeping thistle, water figwort, pendulous sedge, hard rush, honeysuckle and a range of bryophyte species. • Wet woodland within East Clifton Tip LWS (Grid reference: SJ 53048 78786). The woodland lies between wetland habitats to the north and bramble scrub to the south. Semi-mature goat willow dominates with a field layer of greater willowherb, soft rush and brooklime. • The wet woodland parcels identified within the Preliminary Order Limits are likely to qualify as the HPI.	There is a single area of wet woodland within the Preliminary Order Limits of the Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen spurlines, located within a shallow depression adjacent to the Weaver Navigation in Clifton Lagoon LWS. A small watercourse runs through the woodland. Trees are of a range of ages, dominated by goat and crack willow as well as hawthorn, aspen, ash, wild cherry, poplar sp., sycamore, silver birch and blackthorn with elder in the understorey. The	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
		field layer includes hart's-tongue fern, soft shield fern, bracken, bramble, hemlock water dropwort, violet sp., fescue sp., Lords and Ladies, and a range of bryophyte species. In wetter areas the field layer is dominated by common reed and bramble which have created small swamp areas where there is an absence of trees. Other species include dog's mercury, horsetail sp., common hogweed, common chickweed, opposite leaved golden saxifrage, bittercress sp., wild garlic, lesser celandine, cleavers, common nettle, sedge sp., marsh marigold, watercress and water figwort.	

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
Lowland mixed deciduous woodland (w1f)	Lowland mixed deciduous woodland is rare within the Preliminary Order Limits of the corridor and present at: • Two parcels of woodland within East Clifton Tip LWS (Grid references: SJ 52805 79207 and SJ 53122 79084). The canopies are dense, and comprise alder, goat willow, crack willow, silver birch, sycamore, wild cherry and oak with elder, hawthorn, blackthorn and dog rose in the understorey. At least 6 native species are present within each woodland parcel and trees are largely semi-mature and mature. The field layer and ground flora support dog's mercury, common nettle, willowherb sp., bracken, hart's tongue fern, soft shield fern and thistle sp. Himalayan balsam was noted across both woodlands. • Woodland at the edge of the Preliminary Order Limits (Grid reference: SJ 57497 77577). The canopy is dominated by mature oak and sycamore, with beech, ash, wild cherry, hawthorn, hazel, willow sp. and elder in the understorey. The field layer and ground flora support bluebell sp., wood anemone, opposite-leaved golden saxifrage, wild garlic, common hogweed, common nettle, cock's foot, cow parsley and red campion. This area of woodland is closely linked to woodland within Rye Grass Pipes LWS which supports ancient and semi-natural woodland. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied. The lowland mixed deciduous woodland parcels identified within the Preliminary Order Limits are likely to qualify as the HPI.	Lowland mixed deciduous woodland is rare within the Preliminary Order Limits of the spurlines, found in a single location on a steep slope within Clifton Cloughs B LWS (Grid reference: SJ 52404 79895). The canopy is dominated by beech, oak, ash, willow sp., sycamore and birch, with elder present in the understorey. The field layer and ground flora support abundant English bluebell and wild garlic, as well as common nettle, fern sp. and ivy.	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
Other woodland; broadleaved (w1g)	Other woodland; broadleaved is rare along the Preliminary Order Limits of the corridor, associated with small discrete parcels along watercourses and roadsides which are considered to be of planted origin. Several small parcels are also present within East Clifton Tip LWS which are likely to have self-seeded. Typically, trees range in age from young to mature, and the canopy is dominated by species including sycamore, beech, ash, alder, oak, goat willow and silver birch. An established understorey is often absent, though where present species include field maple, hazel, elder, hawthorn, blackthorn, guelder rose, gorse and dogwood. Alder and goat willow are more common in woodlands close to waterbodies. The field layer and ground flora are generally sparse and often include grasses such as perennial ryegrass, soft brome, cock's foot and Yorkshire fog, as well as bramble, horsetail, common nettle, cleavers, willowherb sp., hart's tongue fern, creeping thistle, common hogweed, bracken, wild strawberry, speedwell sp. and garlic mustard. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied.	Other woodland; broadleaved is frequent within the Preliminary Order Limits of the spurlines and comprise woodland considered to be of planted origin as well as some which have developed through possible self-seeding since the earliest available Google Earth imagery for the area in 2001. Trees are typically of a range of ages and include species such as silver birch, willow sp., sycamore, ash, poplar sp., beech and oak with holly, elm, hawthorn, hazel, rowan and elder in the understorey. A low proportion of coniferous trees, including Scots pine and fir are noted.	Other woodland; broadleaved is frequent within the Preliminary Order Limits of the spurline and comprise woodland considered to be of planted origin, and some which have developed, possible through self-seeding, since the earliest available Google Earth imagery for the area in 2001. Trees are typically of a range of ages and include species such as silver birch, willow sp., cherry, field maple, Swedish whitebeam, sycamore, ash, poplar, beech and oak with holly, elm,

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
		Generally, the field and ground layer are limited to ruderal and scrub species including bramble, bracken, common nettle, cleavers, willowherb sp. and common hogweed, however, also includes Yorkshire fog, dog's mercury, wood avens, Lords and Ladies, hybrid bluebell and ivy. A stand of Japanese knotweed is present along a roadside within woodland. Within the golf course the woodland floor is largely bare ground. Where invasive non-native species are present, such as Japanese knotweed, secondary code 48 (non-native) has been applied. Where adjacent to roads, evidence of fly tipping is	hawthorn, hazel, rowan and elder in the understorey. A low proportion of coniferous trees, including Scots pine and fir are noted. Generally, the field and ground layer are limited, comprising common nettle, cleavers, hybrid bluebell, bryophyte species., fern sp. with a high proportion of leaf litter and bare ground. Within the golf course the woodland floor is largely bare ground. Where adjacent to roads, evidence of fly tipping is present within the woodland.

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
		present within the woodland.	
Line of trees (w1g6)	Lines of trees, including grown out hedgerows, are uncommon within the Preliminary Order Limits of the corridor, associated with field boundaries or roads. Typically, trees are of semi-mature to mature age with sycamore, poplar sp., oak, ash, hawthorn and blackthorn often recorded.	Habitat not recorded	Lines of trees are uncommon within the Preliminary Order Limits of the spur and only found within the golf course. A range of native and non-native largely broadleaf species are present including sycamore, common lime, hazel, horse chestnut, silver birch and cherry sp., as well as fir.
Hedgerow (priority habitat) (h2a)	Hedgerows are frequent throughout land within the Preliminary Order Limits of the corridor, typically at field boundaries and occasionally associated with ditches. There is a mix of intact and defunct hedgerows, some hedgerows have trees, and there are varying levels of management. Most hedgerows were found to be species-poor, typically dominated by one or two native woody species, usually hawthorn or blackthorn. Other species frequent in	Hedgerows are rare within the Preliminary Order Limits of the spurlines and contained to a short, isolated species-poor blackthorn hedgerow.	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
	hedgerows along the corridor are oak, elder, dog rose, holly, hazel and gorse. Bramble is also present within most hedgerows. Field margins (usually 1-2m wide) are common alongside hedgerows, though a number of hedgerows lack a margin where land has been cultivated or grazed to the hedgerow base. Where present, field margins generally consist of species-poor modified grassland and ruderal vegetation that typically reflects the intensive agricultural within the adjacent fields; species recorded include cock's foot, perennial ryegrass, common hogweed, creeping thistle, spear thistle, cleavers, common nettle, cow parsley, burdock, mugwort, ivy and hedge bindweed. All native hedgerows over 20m in length are likely to qualify as the HPI.	All native hedgerows over 20m in length are likely to qualify as the HPI.	
Other hedgerow (h2b)	A single hedgerow within the corridor was classified as Other hedgerow, limited to a single Leyland cypress hedge within a former golf course.	Habitat not recorded	Other hedgerows are rare within the Preliminary Order Limits of the spurline and contained to a few short, isolated stretches non-native species-poor firethorn hedge.

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
Dense scrub (h3)	Dense scrub is rare within the Preliminary Order Limits of the corridor and associated with an area of dense willow scrub. This habitat is mapped as h3 as it comprises an area of scrub which cannot be classified to a Level 4 habitat.	Habitat not recorded	Habitat not recorded
Bramble scrub (h3d)	Bramble scrub is frequent within the Preliminary Order Limits of the corridor, associated with the perimeter of grassland fields and neglected industrial areas. Bramble is the dominant species, forming stands typically 1.5-2m. The field and ground layer are limited, usually comprising bryophyte species, grasses, reeds and tall herbs. Within East Clifton Tip, low amounts of scattered hawthorn, elder, gorse, spindle, alder, silver birch, sycamore, willow and Japanese knotweed are present amongst the dense bramble. Where invasive non-native species are present, such as Japanese knotweed, secondary code 48 (non-native) has been applied. Where areas of bare ground are present within bramble scrub, secondary code 73 (bare ground) has been applied.	Bramble scrub is rare within the Preliminary Order Limits of the spurlines, associated with woodlands and the bankside of the Weaver Navigation, and often interspersed with ruderal vegetation such as willowherb.	Habitat not recorded
Mixed scrub (h3h)	Mixed scrub is frequent within the Preliminary Order Limits of the corridor and associated with neglected agricultural/grassland fields and industrial areas, railway embankments and field margins. Species present typically include willow, silver birch, rose sp., elder, holly, dogwood, bramble and hawthorn. Where mixed scrub is associated with ditches, watercourses or damp areas goat willow is often present. The field layer within scrub habitats is generally	Mixed scrub is rare within the Preliminary Order Limits of the spurlines, associated with discrete patches within woodland. Scrub species present include willow sp.,	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
	limited, comprising species such as common nettle, rough meadow grass, Yorkshire fog, broad-leaved dock, dame's rocket and spear thistle. Japanese knotweed and giant hogweed are present within and adjacent to East Clifton Tip LWS. Where invasive non-native species are present, such as Japanese knotweed, secondary code 48 (non-native) has been applied.	hawthorn, birch, blackthorn and bramble.	
Reedbeds (f2e)	Reedbeds are occasional within the Preliminary Order Limits of the corridor, however several discrete areas are found close to the River Weaver within Frodsham Field Studies Centre LWS and East Clifton Tip LWS. Reedbeds are dominated by common reed, with generally few other species recorded. The reedbeds are characterised by areas of open water and scattered trees and often found adjacent to wet woodland. In some areas willow, alder and bramble scrub encroaches onto the reedbed from adjacent habitats. Reedbeds are likely to qualify as the HPI.	Habitat not recorded	Habitat not recorded
Other swamps (f2f)	Other swamps are occasional within the Preliminary Order Limits of the corridor, however similar to reedbeds, several discrete areas are found close to the River Weaver within Frodsham Field Studies Centre LWS and East Clifton Tip LWS. Dominant species include bulrush, reed canary grass and great willowherb with occasional hard rush. Other swamps are mostly characterised by areas of open water, including watercourses and scattered trees and often found adjacent to wet woodland.	Habitat not recorded	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
Arable and horticulture (c1)	Fields which could not be classified to Level 4 of the Primary Habitat Hierarchy, where crops were not present during survey, have been classified as c1.	Habitat not recorded	Habitat not recorded
Arable cereal crops (c1c) and non-cereal crops (c1d)	Arable land is abundant within the Preliminary Order Limits of the corridor. The topography of the land on this route is largely flat, particularly where the route runs within the Frodsham, Helsby and Ince Marshes LWS and in these locations, a high-water table and water logging was recorded. A variety of crops are grown, including wheat, barley, maize and broad bean as well as non-cereal grasses for silage. Some fields could not be classified to Level 4 of the Primary Habitat Hierarchy where crops were not present during survey. Fields are generally large in size, creating open landscapes, and bounded by hedgerows. Arable land to the south of the River Mersey, particularly within Frodsham, Helsby and Ince Marshes LWS, generally has fewer hedgerows, and arable fields are more often demarcated by ditches which form a network around the fields. Field margins are frequently no more than 1m wide and predominantly consist of species-poor modified grassland and ruderal species, as described in association with hedgerows and ditches. Other species often recorded include shepherd's purse, speedwell sp., pineappleweed, field pansy, field mustard, common fumitory and red dead nettle.	Habitat not recorded	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
u1 350	There is an area of vacant/derelict land to the south of East Clifton Tip LWS (Grid reference: SJ 53161 78755) comprising artificial un-sealed surface containing hard rush, soft rush, bramble, common ragwort, teasel, fleabane sp., wild strawberry, dove's foot cranesbill, forget me not sp., creeping thistle and a range of bryophytes. The secondary code 350 (Vacant/derelict land) has been applied to this area of land.	Habitat not recorded	Habitat not recorded
u1 351	Habitat not recorded	There is a flat open area within woodland to the east of Intergen (Grid reference: SJ 52236 80039) measuring approximately 0.08ha. It appears to have been disturbed by industrial use in the past. A carpet of bryophyte species dominates, with small patches of bare ground as well as ruderal vegetation including common nettle, common ragwort and rosebay willowherb. At the edge of the area alder saplings	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
		are present as well as bramble scrub. The secondary code 351 (Abandoned ruderal and derelict areas) has been applied to this area of land.	
Open Mosaic Habitat on Previously Developed Land (u1a)	Open Mosaic Habitat on Previously Developed Land is rare within the Preliminary Order Limits of the corridor and found in a single location within East Clifton Tip LWS, which has a history of disturbance. The area measures approximately 1.1ha and exhibits spatial variation of annuals, bryophytes and areas of exposed bare ground comprising spoil and loose aggregate. Annuals include tormentil, mouse-ear hawkweed, wild strawberry, bird's foot trefoil, colt's foot and dandelion. Scattered birch and bramble scrub is also present. This area of Open Mosaic Habitats on Previously Developed Land is likely to qualify as the HPI.	Habitat not recorded	Habitat not recorded
Developed land; sealed surface (u1b)	Developed land; sealed surface is mainly associated with roads and railways and is scattered throughout the Preliminary Order Limits of the corridor. An extensive area is present at the corridor terminal comprising oil refinery compounds and access roads around the site.	Developed land; sealed surface is frequent within Preliminary Order Limits of the spurlines, associated with roads and industrial areas.	Developed land; sealed surface is frequent within Preliminary Order Limits of the spurline, associated with

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
			roads, lorry parks and industrial areas.
Artificial unvegetated, unsealed surface (u1c)	Artificial unvegetated, unsealed surface is occasional within the Preliminary Order Limits of the corridor, associated with neglected industrial areas and agricultural tracks. There is also an area of land comprising largely loose aggregate beneath the M56, interspersed with bramble scrub and wetland habitats.	Habitat not recorded	Habitat not recorded
Built linear features (u1e)	Built linear features are frequent within the Preliminary Order Limits of the corridor, mainly in the form of fences and surfaced paths.	Habitat not recorded	Habitat not recorded
Eutrophic standing waters (r1a)	There are two ponds within the Preliminary Order Limits of the corridor, classed as eutrophic standing water. Both lie within arable fields, and one is surrounded by a small parcel of woodland. The water and mud appear dark and some aquatic vegetation is present, including sedge sp. and reed canary grass. Bankside vegetation includes cock's foot, Yorkshire fog, willowherb sp., horsetail sp., cow parsley and common hogweed.	There are two ponds within the Preliminary Order Limits of the spurlines, classed as eutrophic standing water. One pond (Grid reference: SJ 52865 79741) lies within a depression within a woodland alongside an exposed pipeline (within Clifton Lagoon LWS). The	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
		water and mud appear dark and some aquatic vegetation is present including reed canary grass, common reed, rush and sedge sp. Bankside vegetation includes young birch and willow trees, common nettle, bracken and bramble. The other pond also lies within woodland (Grid reference: SJ 52263 80036), surrounded by willow sp. and hazel scrub and dominated by bulrush.	
Standing open water and canals (r1)	Ditches (r1 191) are abundant within the Preliminary Order Limits of the corridor and particularly frequent where the land is flatter near the River Mersey. Ditches are most often associated with field boundaries and in many locations lie adjacent to hedgerows. They range in size from 0.5-3m wide. Ruderal vegetation is common along the banksides of ditches, with cock's foot, great willowherb, broad-leaved dock, common nettle, common hogweed, cow parsley	A ditch (r1 191), 1-2m wide, runs within the wet woodland, before joining Flood Brook and flowing into the Weaver Navigation. The ditch is heavily shaded by	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
	and cleavers often present. Himalayan balsam was occasionally recorded, in one location this species covered a large swathe of the bankside. Duckweed and water starwort are present in the slower flowing ditches of the flat agricultural land, the former occasionally forming dense mats. Potential water fern was also recorded within a ditch in Frodsham, Helsby and Ince Marshes LWS. Management practices vary and, in some cases, dense bramble has overgrown ditches. A series of modified grassland fields within Frodsham, Helsby and Ince Marshes LWS lie within land classified as the HPI Coastal and floodplain grazing marsh. Here, ditches are up to 5m wide and support a greater botanical species richness than other ditches along the corridor. Emergent vegetation including bulrush, yellow iris, rush sp., common reed, reed canary grass and pond sedge is present. In some cases, common reed forms dense stands within the channel. Water forget-me-not, duckweed and water starwort is occasionally recorded within the channel. Where invasive non-native species are present, secondary code 48 (non-native) has been applied.	bankside vegetation, comprising mainly willow, elder and bramble. Water is generally clear and in places the ditch is dense with leaf litter. There is limited in-channel vegetation and significant amounts of rubbish are present within the channel. A dry ditch is present alongside a road and is choked with vegetation including, hart's-tongue fern, willow sp. and hawthorn.	
Canals (r1e)	The Trent and Mersey Canal bisects land within the Preliminary Order Limits of the corridor (Grid reference: SJ 59228 77272). At this point the canal measures approximately 10m in width and supports a tow path on its southern bank and bramble scrub on its	The Weaver Navigation Canal bisect the Preliminary Order Limits of the spurlines. At the point it crosses the spur the canal has concrete	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
	northern bank. Arable land and grassland lie beyond. Trenchless crossing will be used to avoid impacts to the canal. The Weaver Navigation canal bisects the Preliminary Order Limits of the corridor (Grid reference: SJ 53422 78944). At this point the canal has engineered banks, and supports modified grassland, broadleaved woodland and scrub on its southern bank and reedbed on its northern bank.	reinforced banks supporting bramble scrub to the south and a modified grassland towpath to the north.	
Other rivers and streams (r2b)	The River Weaver bisects the Preliminary Order Limits of the western corridor between Frodsham Field Studies Centre LWS and Frodsham, Helsby and Ince Marshes LWS, measuring approximately 50m in width. Both the southern and northern banks support reedbeds, with mixed scrub beyond to the south and wet woodland beyond to the north. There are several small watercourses which cross the Preliminary Order Limits, described below: Hornsmill Brook (, Grid reference: SJ 47797 75783) flows between modified grassland and arable fields within Frodsham, Helsby and Ince Marshes LWS. The watercourse is 3m wide and algae was noted covering approximately 20% of the open water. Steep banks support nettles and Himalayan balsam to the west and reed canary grass, cock's foot, broad-leaved dock and red campion to the east. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied.	There are two watercourses within the Preliminary Order Limits of the spurlines, described below: Flood Brook (Grid reference: SJ 52977 79568) flows within an area of wet woodland, before joining the Weaver Navigation. The watercourse is 1-2m wide, with clear water and a moderate flow. The substrate is mainly mud and silt. The watercourse is heavily shaded by the woodland. No in-channel	Habitat not recorded

Habitats	Line 1 West Corridor - Stanlow HPP HAGI to Central Hub HAGI	Rocksavage HAGI to Runcorn HAGI and Runcorn HAGI to Intergen	Runcorn HAGI to The Heath
	Longacre Brook (Grid reference: SJ 58279 77439) flows through an area of neutral grassland and joins the River Weaver approximately 400m to the south. Water quality was considered to be good. Limited aquatic plants were noted and the banksides were dominated by grassland species with scattered ruderals. Anecdotal evidence was provided that the stream is regularly dug out by the landowner to prevent flooding. Dean Brook (Grid reference: SJ 59496 76872) flows through an area of neutral grassland within the Preliminary Order Limits and joins the River Weaver approximately 250m to the south. The river is ~2m wide where it bisects the Preliminary Order Limits, with a moderate flow. No aquatic species were noted and banks are dominated by ruderal vegetation and scrub including, cow parsley, common nettle, bramble, hawthorn and elder. Flood brook (Grid reference: SJ 52902 79128) flows through scrub, reedbeds and grassland within East Clifton Tip LWS before flowing into the River Weaver. The watercourse is heavily shaded and overgrown by bramble where it runs through scrub and becomes more open through reedbeds and grassland. The water is clear with a slow flow.	or marginal aquatic vegetation was noted. Small watercourse (Grid reference: SJ 52427 79875) which is found at the edge of the Preliminary Order Limits, before being culverted under a road. The watercourse is approximately 1.5m wide and 10cm deep with clear water and a moderate flow. The banks are gently sloping and support willow trees along with willowherb sp., hart's-tongue fern, common nettle and bulrush. No in-channel vegetation was noted.	

Table 5C 3.2 Summary of habitats throughout land within the Preliminary Order Limits of the southern corridor

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
Other neutral grassland (g3c)	Other neutral grassland is occasional within the Preliminary Order Limits of the Central Hub HAGI to Inovyn HSF HAGI corridor, mainly associated with swards within unmanaged or neglected fields. Grass species present typically include cock's foot, false oat grass, crested dog's tail, Yorkshire fog, perennial ryegrass, tufted hairgrass, bent sp., fescue sp. Sweet vernal grass and meadow foxtail. Herbs typically present include creeping buttercup, meadow buttercup, common knapweed, common chickweed, speedwell sp., cut-leaved cranesbill, bird's foot trefoil, daisy, dandelion, white clover, red clover, cleavers, common nettle, broad-leaved dock, creeping thistle, spear thistle, common sorrel and common ragwort. Some grasslands support scattered rushes and reeds. Where scattered rushes are present, secondary code 14 (scattered rushes) has been applied. Discrete areas of other neutral grassland, including at field boundaries, support dominant tall herb vegetation to over 1m in height, typically comprising species such as Yorkshire fog, cock's foot, Timothy, false oat-grass, hard rush, creeping buttercup, hoary willowherb, broad-leaved dock, orache, redshank, common nettle, marsh thistle, great willowherb, horsetail sp., common hogweed, vetch sp., oxeye daisy, ribwort plantain, creeping thistle and silverweed. Where stands of tall herbs are present, secondary code 16 (Tall herb) has been applied. Where scattered trees are present, secondary code 11 (scattered trees) has been applied.
Holcus-Juncus neutral grassland (g3c8)	Most neutral grassland habitats could be classified no further than to the Level 4 habitat 'Other neutral grassland'. However, one area within the Preliminary Order Limits supported the distinct range and abundance of species to allow classification to Level 5, Holcus-Juncus neutral grassland (Grid reference: SJ 60380 75038 and SJ 61990 70727) is rare within the Preliminary Order Limits, associated with two fields which appear to be managed through grazing. The grasslands are damp with patches of ephemeral water. Yorkshire fog is the dominant grass with infrequent perennial ryegrass, false-oat grass, crested dog's tail and marsh foxtail also recorded. Abundant creeping buttercup and meadow buttercup are present as well as occasional broad-leaved dock and curled dock. Rushes are abundant including sharp flowered rush and soft rush. Where rushes are dominant, secondary code 15 (rushes dominant) has been applied.

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
Modified grassland (g4)	Modified grassland is abundant within the Preliminary Order Limits of the corridor, associated with grazed pasture and silage production. Species richness is low though tends to increase towards the field boundaries. Sward height varies depending on the time of year surveyed and management practices. Grasses dominate the sward and species present typically include perennial ryegrass, Italian ryegrass, cock's foot, Yorkshire fog and meadow grass sp. Herbs are infrequent, though where present, typically include white clover, creeping buttercup, bittercress sp., common nettle, willowherb sp., broad-leaved dock, dandelion, ribwort plantain, creeping thistle, spear thistle, groundsel and common chickweed with rare creeping bent, meadow buttercup, thyme-leaved speedwell, dove's foot cranesbill and shepherd's purse. Where stands of tall herbs are present, secondary code 16 (Tall herb) has been applied. Where scattered trees are present, secondary code 11 (scattered trees) has been applied. Scattered rushes are present in wetter fields, particularly those in proximity to the River Weaver. Where scattered rushes are present, secondary code 14 (scattered rushes) has been applied. Where scattered scrub is present, secondary code 10 (scattered scrub) has been applied. Two fields of modified grassland lie within Acton Bridge Meadows LWS. Some field margins have a greater species richness, with red dead nettle, scentless mayweed, speedwell sp. and field mustard. None of these are classified as Arable field margins (c1a) as they are not considered to be managed for wildlife.
Wet woodland (w1d)	Wet woodland is rare within the Preliminary Order Limits of the corridor, found adjacent to the location of the Inovyn HSF HAGI. The woodland lies within a depression between grazed pasture fields approximately 120m north of Puddinglake Brook and is dominated by goat willow. Blackthorn, hawthorn, elder and oak are occasional towards the edges of the woodland. Areas of standing open water within the woodland appear dark and the waters edge is dominated by leaf litter. Aquatic vegetation is limited but includes yellow flag iris and common reed as well as hard and soft rush. The wet woodland parcel identified within the Preliminary Order Limits is likely to qualify as the HPI.
Lowland mixed deciduous woodland (w1f)	Lowland mixed deciduous woodland is occasional within the Preliminary Order Limits of the corridor, present at: Small parcel of woodland at the edge of a pastoral field (Grid reference: SJ 60522 74516). Trees are largely mature and include black poplar, hornbeam, crack willow, ash and wild cherry. The understory includes hawthorn, elder and holly. The field layer is sparse beneath the main canopy but becomes more diverse towards the edges, likely influenced by the adjacent modified grassland habitat, with species including Yorkshire fog, perennial ryegrass,

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
	cleavers, common nettle, red dead nettle, creeping thistle, spear thistle, bramble, cow parsley, forget me not sp., snowdrop, square stalked willowherb, dandelion, buttercup sp. and a range of bryophyte species. Woodland alongside the River Weaver within Heys Wood and the Riddings LWS mapped as the HPI ancient woodland (Grid reference SJ 64110 70696). The woodland exists on a steep slope surrounding a tributary of the River Weaver. A range of mostly mature species are present in the canopy including beech, birch, alder, Scot's pine and sycamore. Many of the trees are ivy-clad. The understorey comprises holly, hawthorn, Himalayan balsam and rhododendron. The field layer comprises wild garlic, dog's mercury, English bluebell, bramble and cleavers. Woodland on the northern bank of the River Weaver, partially within Weaver Valley/Newbridge Pool LWS (Grid reference: SJ 64228 70716). There are a range of ages, including young trees and older mature specimens. Semi-mature oak dominates the canopy, with sycamore, yew, ash, silver birch, willow sp., horse chestnut also recorded. The understory is largely lacking but where present, includes hazel, elder, blackthorn, hawthorn and rhododendron. The field layer comprises dog's mercury, common nettle, bramble, creeping buttercup, sedge sp., herb robert, fern sp., willowherb sp. and dogs Mercury. Woodland on the steep southern bank of the River Weaver, within Weaver Valley/Newbridge Pool LWS (Grid reference: SJ 64319 70681). Trees are largely mature and include dominant sycamore, oak and silver birch. The understorey comprises holly, hazel, rowan, elder, ash and hawthorn. The field and ground layers are sparse and support wild garlic, bluebell sp., lesser celandine, wood anemone, common nettle, cleavers, horsetail sp., willowherb sp. and fern sp., as well as ivy and Himalayan balsam at the base of the slope. Two blocks of woodland bordering a rural road (Grid reference: SJ 67282 69003). Trees are largely mature, and the canopy includes pine sp., oak, beech, common lime, yew and horse chestnut. The understorey comprises hazel, holly, hawthorn and elder. The field layer is sparse and mainly supports ground elder, garlic mustard, Spanish bluebell and ivy. Woodland alongside Puddinglake Brook (Grid reference: SJ 68801 69796). Trees are largely mature, and the canopy includes oak, alder, ash, and sycamore. The understorey comprises hazel, holly, crab apple and hawthorn. The field and ground layers supports lesser celandine, bluebell sp., garlic mustard, red campion, common fumitory, enchanter's nightshade, common nettle, vetch sp., fern sp., common hogweed, creeping thistle, burdock sp., bramble and ivy. Where invasive non-native species are present, secondary code 48 (non-native) has been applied. The lowland mixed deciduous woodland parcels identified within the Preliminary Order Limits are likely to qualify as the HPI.

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
Other woodland; broadleaved (w1g)	Other woodland; broadleaved is occasional within the Preliminary Order Limits of the corridor and includes woodland considered to be of planted origin. Species typically present include silver birch, oak, hazel, ash, field maple, goat willow, cherry, sycamore, alder and poplar sp., with infrequent elm and aspen. Low numbers of coniferous trees are occasionally present, including Scot's pine. There are several small parcels of woodland surrounding ponds, usually found within arable landscapes and these commonly support goat willow. The understorey usually includes hawthorn, blackthorn, elder, gorse, dogwood, elder, dog rose and guelder rose. Species present in the field layer typically include bracken, common nettle, cleavers, cock's foot and broad-leaved dock.
Line of trees (w1g6)	Lines of trees are common within the Preliminary Order Limits of the corridor, associated with field boundaries, roadsides and occasionally with watercourses. Trees are mostly semi-mature to mature and features are usually species-rich. Species typically present include silver birch, alder, cherry, crab apple, ash, oak, holly, elder, sycamore, field maple, hazel, blackthorn, hawthorn and beech. Where associated with ditches, species usually present include crack willow, goat willow and alder.
Other woodland; mixed (w1h)	Other woodland; mixed is rare throughout land within the Preliminary Order Limits of the corridor, associated with plantation woodland and typically dominated by a range of species including larch, Scot's pine, sycamore, ash, oak, beech, field maple, silver birch and goat willow. Species within the understorey include gorse, hazel, hawthorn and dog rose. Generally, the field layer and ground flora are limited, comprising largely bramble, common nettle and grasses. However, in plantation woodland adjacent to a golf course (Grid reference: SJ 61770 71020) the following species were recorded bluebell sp., daffodils sp., dandelion, campion sp., cleavers, broad-leaved dock, wood sorrel, violet sp., ragwort sp., daisy, honeysuckle, common nettle, wild strawberry, forget me not sp., herb robert, red dead nettle, common chickweed, bracken, a range of bryophyte species and ivy.
Other coniferous woodland (w2c)	Other coniferous woodland is rare throughout land within the Preliminary Order Limits of the corridor, limited to a small area of plantation pine and larch woodland. This woodland supports a very limited field layer, largely common nettle upon leaf and needle litter.

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
Hedgerow (priority habitat) (h2a)	Hedgerows are frequent throughout land within the Preliminary Order Limits of the corridor, typically found at field boundaries and occasionally associated with ditches. There is a mix of intact and defunct hedgerows, some hedgerows have trees, and there are varying levels of management. The majority of hedgerows are species-poor and dominated by hawthorn. Other species frequent in hedgerows, however usually not dominant, are blackthorn, elder, hazel, holly, sycamore and elm. Where present, standard trees include ash, oak, poplar sp. and silver birch. Bramble is also present within most hedgerows. Field margins are common alongside hedgerows, though a number of hedgerows lack a margin, where land has been cultivated or grazed to the hedgerow base. Where present, field margins are usually 1-2m in width and consist of species-poor modified grassland and ruderal vegetation that typically reflects the intensive agricultural practices within the adjacent fields; species usually present include perennial ryegrass, false oat grass, Yorkshire fog, cock's foot, cleavers, creeping buttercup, creeping thistle, garlic mustard, bramble, red dead nettle, common chickweed, common nettle, common hogweed and dandelion. Other less commonly recorded species include lesser celandine and bittersweet. All native hedgerows over 20m in length are likely to qualify as the HPI.
Other hedgerows (h2b)	Other hedgerows are rare within the Preliminary Order Limits of the corridor and consist of non-native ornamental hedgerows.
Bramble scrub (h3d)	Bramble scrub is rare within the Preliminary Order Limits of the corridor and found along in small, discrete areas along roadsides, railways and watercourses. Bramble is the dominant species present, forming stands typically 1.5-2m high with field layers sparse, occasionally supporting tall herbs including cleavers, common nettle, spear thistle and creeping thistle. Where stands of tall herbs are present, secondary code 16 (Tall herb) has been applied.
Gorse scrub (h3e)	Gorse scrub is rare within the Preliminary Order Limits of the corridor, found at field boundaries and roadsides. Areas of gorse scrub are often small and interspersed with occasional elder and young silver birch. The field and ground layer are dominated by species typical of the surrounding grassland habitats, including Yorkshire fog, common chickweed, speedwell sp., yarrow, ragwort sp., cock's foot, daisy, white clover as well a range of bryophyte species.

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
Hawthorn scrub (h3f)	Hawthorn scrub is rare within the Preliminary Order Limits of the corridor and found in a single location on the southern banks of the River Weaver.
Mixed scrub (h3h)	Mixed scrub is rare within the Preliminary Order Limits of the corridor and is associated with small, discrete areas along roadsides, field boundaries and around ponds. Species present typically include hawthorn, blackthorn, dog rose, hazel, elder, gorse and goat willow. Bramble is often common but not dominant. The field layer within scrub habitats is generally limited, comprising tall herbs such as common nettle and willowherb sp. Where stands of tall herbs are present, secondary code 16 (Tall herb) has been applied.
Reedbeds (f2e)	Reedbeds are rare within the Preliminary Order Limits of the corridor. Several discrete areas are found close to watercourses, particularly canals, and in waterlogged fields. Reedbeds are dominated by common reed, with occasional soft rush and sedge sp. also recorded. Reedbeds are likely to qualify as the HPI.
Other swamps (f2f)	Other swamps are rare within the Preliminary Order Limits of the corridor and are typically found close to watercourses. Dominant species include bulrush, reed canary grass and willowherb sp. Other species typically present, but not dominant, include Yorkshire fog, cock's foot, common nettle, broad-leaved dock. creeping buttercup, creeping thistle, cleavers, Himalayan balsam and bramble. Where invasive non-native species are present, secondary code 48 (non-native) has been applied. There is a recently formed swamp in areas where site operations have created waterlogged conditions (Grid reference: SJ 61235 71570). Here, a mixture of species is present including common reed, great willowherb and rushes, interspersed with shallow open water and exposed mud.
Game bird mix strips and corners (c1a8)	Arable field margins are rare throughout the Preliminary Order Limits of the corridor. A single maize field, where an area has been unharvested is classified as game bird mix strips and corners.

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
Temporary grass and clover leys (c1b)	Arable fields with temporary grass cover are occasional throughout the Preliminary Order Limits of the corridor. Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.
Arable and horticulture (c1)	Several fields could not be classified to Level 4 of the Primary Habitat Hierarchy where crops were not present during survey and have therefore been classified to the Level 3 habitat.
Arable (Cereal crops c1c and Non-cereal crops c1d)	Arable fields are frequent throughout the Preliminary Order Limits of the corridor. Both cereal and non-cereal crops are cultivated within large fields, often bounded by hedgerows and occasionally by ditches. Crops include wheat, maize, potatoes and beetroot. Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.
Developed land; sealed surface (u1b)	Developed land; sealed surface is frequent within the Preliminary Order Limits of the corridor, mainly associated with roads and railways.
Artificial unvegetated, unsealed surface (u1c)	Artificial unvegetated, unsealed surface is rare within the Preliminary Order Limits of the corridor, found within a quarry (Grid reference: SJ 61260 71474) where sand and gravel surfaces form roads around the quarry. Additionally found along agricultural and access tracks where the substrate is stone, gravel or mud.

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
Built linear features (u1e)	Built linear features are frequent within the Preliminary Order Limits of the corridor, mainly in the form of fences and surfaced paths.
Other inland rock and scree (s1d)	Other inland rock and scree is rare within the Preliminary Order Limits of the corridor, found within an aggregates quarry (Grid reference: SJ 61260 71474). This primary habitat is supported with the secondary code 1030 (Sand pit quarry or open cast mine).
Eutrophic standing waters (r1a)	There are 14 ponds within the Preliminary Order Limits of the corridor and these are all classed as eutrophic standing water. They are particularly concentrated towards the end of the corridor. Most ponds lie within arable or pastoral fields and are typically surrounded by a small area of woodland, scrub or rough grassland. Willow sp. grow at the margins and within some ponds. Generally, marginal and aquatic vegetation is limited. Where present, species recorded include bulrush, reed canary grass, yellow flag iris and soft rush. Bankside vegetation often includes willowherb, common nettle, dock sp. and bramble. Pond water was typically turbid and of poor quality, likely a result of poaching by livestock or drainage from the surrounding agricultural land.
Standing open water and canals (r1)	Ditches (r1 191) are occasional within the Preliminary Order Limits of the corridor, mostly associated with arable and pastoral fields and often adjacent to hedgerows or lines of trees. They measure between 1-3m wide and have varying water levels and generally a slow flow rate. Water quality is poor and ditches are likely to be impacted by run-off from nearby agricultural fields. Banks are usually steep and ruderal vegetation, grasses and scrub are common along the banksides, with cock's foot, perennial ryegrass, common thistle, spear thistle, common nettle, willowherb sp., common hogweed and lesser celandine typically recorded. Limited aquatic in-channel or marginal vegetation was recorded in most ditches, though where present includes duckweed, common reed, reed canary grass, soft rush and hard rush. Willow and alder are found along the edge of some ditches.
Canal (r1e)	The Trent and Mersey Canal bisects the Preliminary Order Limits of the corridor in two locations; just to the south of the Central Hub and towards the end of the route near the Inovyn HSF HAGI (the latter lies within Trent and Mersey

Habitats	Line 2 Corridor - Central Hub HAGI to Inovyn HSF HAGI
	Canal, Whatcroft LWS). At both points measuring approximately 10-15m wide. In these areas banks of the canal support tow paths of modified grassland and reedbeds. Impacts to canals will be avoided through trenchless crossing.
Other rivers and streams (r2b)	The River Weaver is a large watercourse which bisects the Preliminary Order Limits of the southern corridor twice and at both points measures approximately 35m wide. At the crossing close to the Central Hub the southern bank supports hawthorn scrub, whilst to the north the bank supports scattered common reed beyond which lies a road. Further upstream at the further crossing point, the river has steep banks supporting lowland mixed deciduous woodland and lies within Weaver Valley/Newbridge Pool LWS. Impacts to the river will be avoided through trenchless crossing. Other watercourses which cross the Preliminary Order Limits are described below: The River Dane (Grid reference: SJ 67751 69338) bisects the Preliminary Order Limits towards the end of the southern corridor, between agricultural fields. At this point it measures approximately 10m wide with steep mud banks supporting tall herbs and ruderals. Mature crack willow trees are scattered along the river on both banks. Grange Brook (Grid reference: SJ 60308 73921) is a small (approximately 1m wide) watercourse with steep, sandy banks between agricultural fields. An established tree line adjacent to the watercourse provides significant shading. The banks are vegetated with tall herbs, grasses and Himalayan balsam was also recorded. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied. The water appears clear and has a moderate flow rate. Small tributary of the River Weaver (Grid reference: SJ 64110 70696) which runs within a steep sided lowland mixed deciduous woodland. The watercourse is less than 1m wide and the banks are vegetated with wild garlic, dog's mercury, Himalayan balsam, common nettle, bramble and fern sp. Impacts to the watercourse will be avoided through trenchless crossing. Puddinglake Brook (Grid reference: SJ 68820 69767) is a watercourse measuring approximately 3-4m wide which runs through lowland mixed deciduous woodland within the Preliminary Order Limits. Limited marginal vegetation is present on the mud banks, largely species associated with the surrounding woodland. The watercourse has a slow flow and was noted to have brown, turbid water at the time of survey.

Table 5C 3.3 Summary of habitats throughout land within the Preliminary Order Limits of the eastern corridor and associated spurlines

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
Other neutral grassland (g3c)	Other neutral grassland is occasional within the Preliminary Order Limits of the corridor, associated with swards along roadsides and unmanaged fields. Grass species present typically include cock's foot, red fescue, Yorkshire fog, false oat grass, creeping bent, perennial ryegrass, meadow foxtail and sweet vernal grass. Herbs include creeping buttercup, meadow buttercup, cleavers, meadow vetchling, common knapweed, cut-leaved cranesbill, ribwort plantain, tufted vetch, common vetch, common hogweed, greater stitchwort, lesser celandine and speedwell sp. The banks of watercourses and discrete areas within agricultural land also supports tall herb communities, classified as other neutral grassland, which are often over 1m in height, comprising species such as cock's foot, common nettle, willowherb sp., cleavers, common hogweed, giant hogweed, white dead nettle, creeping buttercup, horsetail, field mustard, giant hogweed and Himalayan balsam. Common reed is occasionally present.	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	Where stands of tall herbs are present, secondary code 16 (Tall herb) has been applied. Where scattered scrub is present, secondary code 10 (scattered scrub) has been applied. Vehicle tracks within grassland have the secondary code 115 (track) applied. Where ruderal/ephemeral associations are present, secondary code 17 (ruderal/ephemeral) has been applied. Where invasive non-native species are present, secondary code 48 (non-native) has been applied.		
Arrhenatherum neutral grassland (g3c5)	Most neutral grassland habitats could be classified no further than to the Level 4 habitat 'Other neutral grassland'. However, some areas within the Preliminary Order Limits supported the distinct range and abundance of species to allow classification to Level 5, A single field supporting Arrhenatherum neutral grassland (Grid reference: SJ 70362 85103). The sward measured approximately ~1m high and false oat grass and cock's foot are dominant, with common hogweed and meadow buttercup also present.	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
Modified grassland (g4)	Modified grassland is frequent within the Preliminary Order Limits of the corridor, mainly associated with grazed pasture, silage production and roadsides. Species richness is low though tends to increase towards the field boundaries. Grasses dominate the sward and species present typically include perennial ryegrass with less frequent meadow grass sp., Yorkshire fog, false oat grass, cock's foot and timothy. Herbs are infrequent though, where present, typically include white clover, dandelion, common nettle, common chickweed, common hogweed, creeping buttercup, field horsetail, broad-leaved dock, cow parsley, bittercress sp. and yarrow with rare wild carrot, creeping thistle, spear thistle, meadow buttercup, foxglove and red clover. Sward height varies depending on the time of year surveyed and management practices, though is mostly short.	Modified grassland is frequent within the Preliminary Order Limits of the spurline, associated with small areas within industrial areas. Perennial ryegrass is dominant with frequent dandelion, creeping buttercup, cleavers, ribwort plantain, common ragwort and a range of bryophyte species.	Modified grassland is occasional within the Preliminary Order Limits of the spurlines, associated with roadsides and industrial areas. The swards are typically short and dominated by perennial ryegrass, fescue sp., Yorkshire fog, ribwort plantain, creeping buttercup, oxeye daisy, daisy, common chickweed, common ragwort, bristly oxtongue, greater plantain, white clover, bittercress sp., teasel, yarrow, common knapweed and willowherb sp.
Wet woodland (w1d)	Wet woodland is rare within the Preliminary Order Limits of the corridor and found in a single location between arable fields, approximately 30m west of Caldwell Brook, with a connecting ditch. Mature goat willow is dominant, growing within the water and on the banks, and with frequent alder	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	and oak are also present on the banks. The field layer and ground flora are limited to bramble, cleavers, common nettle and a range of bryophyte species. The wet woodland parcel identified within the Preliminary Order Limits is likely to qualify as the HPI.		
Lowland mixed deciduous woodland (w1f)	Lowland mixed deciduous woodland is rare within the Preliminary Order Limits of the corridor, present at: • Small parcel of woodland surrounded by agricultural fields (Grid reference: SJ 66749 82019). Trees are largely mature and oak is dominant within the canopy. The understorey includes elder, cherry, holly, hawthorn, rowan and hazel. Most trees are heavily ivy clad. There are signs of human disturbance throughout including litter and fly tipping. The field layer and ground flora dominated by common nettle, cleavers, bracken, Yorkshire fog, speedwell sp., herb Robert, wild garlic as well as ivy and bramble. There are two small ponds within the woodland. • Small parcel of woodland between a rural road and agricultural field (Grid reference: SJ 72367	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	88527). Trees are largely mature and sycamore is dominant within the canopy, with frequent ash and oak. The understory includes hawthorn, ash, yew, holly, rowan, wild cherry and bramble. The field layer and ground layer support dog's mercury, common hogweed, Spanish bluebell, ivy, herb Robert, fern sp., Yorkshire fog, dandelion, red campion and common nettle. • The lowland mixed deciduous woodland parcels identified within the Preliminary Order Limits are likely to qualify as the HPI.		
Other woodland; broadleaved (w1g)	Other woodland; broadleaved is occasional within the Preliminary Order Limits of the corridor and includes woodland considered to be of planted origin, found along roadsides, discrete parcels within agricultural fields and plantation large blocks (secondary code 36 for Plantation applied where appropriate). Species typically present include oak, hazel, ash, willow sp., alder, field maple, sycamore and whitebeam. Species present in the field layer typically include common nettle, cleavers, common hogweed, spear thistle, willowherb sp., red campion, foxglove, bramble, bracken with infrequent wild garlic and Himalayan	Other woodland; broadleaved is occasional within the Preliminary Order Limits of the spurline. Trees are of semi-mature age and the canopy includes oak, silver birch, sycamore, hazel, Scots pine, ash, cherry, Holly, blackthorn, elder, alder. The field layer and ground flora are mown short and includes Yorkshire fog, common mouse-ear, creeping buttercup,	Other woodland; broadleaved is occasional within the Preliminary Order Limits of the spurlines, associated with a large band of plantation woodland along the southern boundary of the former industrial site, supporting semi-mature to mature silver birch and willow sp. with occasional oak. The field layer and ground flora are limited, comprising

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	balsam. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied.	field wood rush, cleavers and daisy.	willowherb, rush sp. bramble and bracken.
Line of trees (w1g6)	Lines of trees are frequent within the Preliminary Order Limits of the corridor, associated with field boundaries, roadsides, watercourses and ponds. Trees are mostly semi-mature to mature and features are usually species-rich. Species typically present include oak, sycamore, hawthorn, alder, ash, blackthorn, crack willow and silver birch with less frequent bird cherry and beech. Where associated with ditches, alder is usually present.	Lines of trees are frequent within the Preliminary Order Limits of the spurline, associated with field boundaries and comprising lines of immature silver birch, beech and oak.	Lines of trees are occasional within the Preliminary Order Limits of the spurlines, and mainly comprise short lengths of trees planted along roadsides with species including mature cypress and poplar sp.
Hedgerow (priority habitat) (h2a)	Hedgerows are abundant throughout land within the Preliminary Order Limits of the corridor, typically found at field boundaries and occasionally associated with watercourses. There is a mix of intact and defunct hedgerows, some hedgerows have trees, and there are varying levels of management. The majority of hedgerows are species-poor and dominated by hawthorn. Other species frequent in hedgerows, however usually not dominant, include blackthorn, elder, goat willow, sycamore, hazel, dog rose, holly, field	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	maple and alder. Where present, standard trees include oak, silver birch, ash and common lime. Bramble is also present within most hedgerows. Field margins are common alongside hedgerows, though a number of hedgerows lack a margin where land has been cultivated or grazed to the hedgerow base. Where present, field margins are usually 1-2m in width and consist of species-poor modified grassland and ruderal vegetation that typically reflects the intensive agricultural within the adjacent fields; species usually present include perennial ryegrass, cock's foot, Yorkshire fog, creeping buttercup, hedge woundwort, hedge bindweed, common nettle, creeping thistle, cow parsley, common hogweed, cleavers, broad-leaved dock, white clover, ivy and bracken. Other less commonly recorded species include bittersweet, foxglove, red campion, common sorrel and honeysuckle. All native hedgerows over 20m in length are likely to qualify as the HPI.		
Dense scrub (h3)	An area of dense Japanese knotweed has been classified as h3 as it does not fit into any Level 4 habitat.	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	Where invasive non-native species are present, secondary code 48 (non-native) has been applied.		
Blackthorn scrub (h3a)	Blackthorn scrub is rare within the Preliminary Order Limits of the corridor and found in a single location as a thin strip along the boundary of an arable field. Infrequent bramble and common nettle were also recorded.	Habitat not recorded	Habitat not recorded
Bramble scrub (h3d)	Bramble scrub is rare within the Preliminary Order Limits of the corridor and found along in small, discrete areas along roadsides, field boundaries and watercourses. Bramble is the dominant species present, forming stands typically 1.5-2m high with field layers sparse, occasionally supporting tall herbs including common nettle, cleavers and infrequent giant hogweed. Where invasive non-native species are present, such as giant hogweed, secondary code 48 (non-native) has been applied.	Habitat not recorded	Habitat not recorded
Hawthorn scrub (h3f)	Hawthorn scrub is rare within the Preliminary Order Limits of the corridor and found in a single location along the boundary of an arable field. It is likely that this habitat was a hedgerow which has grown out to form an area of scrub. Occasional	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	birch and elder were also recorded. The field layer was sparse, supporting perennial ryegrass, cock's foot, common nettle, bramble and teasel.		
Mixed scrub (h3h)	Mixed scrub is rare within the Preliminary Order Limits of the eastern corridor and found in a small number of locations towards the Partington HAGI. In these areas species typically present include bramble, elder, hawthorn, raspberry and willow sp. with occasional ornamental plants including rhododendron, creeping juniper, hebe and cotoneaster. The field layer supports willowherb sp., bracken, burdock, buddleja, comfrey, Himalayan balsam and Japanese knotweed. Where invasive non-native species are present, secondary code 48 (non-native) has been applied.	Habitat not recorded	Habitat not recorded
Temporary grass and clover leys (c1b)	Arable fields with temporary grass cover are frequent throughout the Preliminary Order Limits of the eastern corridor. Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
Arable and horticulture (c1)	Several fields could not be classified to Level 4 of the Primary Habitat Hierarchy where crops were not present during survey and have therefore been classified to the Level 3 habitat.	Habitat not recorded	Habitat not recorded
Arable (Cereal crops c1c and Non-cereal crops c1d)	Arable fields are abundant throughout the Preliminary Order Limits of the corridor. Both cereal and non-cereal crops are cultivated within large fields, often bounded by hedgerows and occasionally by watercourses. Crops include wheat, barley, oil seed rape, linseed, potato, maize, pumpkin and carrot. Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.	Habitat not recorded	Habitat not recorded
Open Mosaic Habitat on Previously Developed Land (u1a)	Open Mosaic Habitat on Previously Developed Land is the dominant habitat recorded within the Preliminary Order Limits of the corridor (also described in Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins). The area comprises a former industrial site where operation ceased in 2017 and since then the site has been left largely	Habitat not recorded	Open Mosaic Habitat on Previously Developed Land is the dominant habitat recorded within the Preliminary Order Limits of the spurlines (also described in Central Hub HAGI to Partington HAGI). The area

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	undisturbed. Habitats lies upon a gravel substrate which support a mosaic of scrub and young trees including bramble, goat willow, gorse, buddleia, dogwood and snowberry; ephemeral vegetation including perennial ryegrass, cock's foot, creeping bent, fescue sp., cock's foot, common ragwort, St John's wort, spear thistle, creeping thistle, dandelion, rush sp., as well as areas dominated by bryophyte species. Patches of bare earth are also present and there is also evidence of recent damage through the presence of tyre tracks along these areas of earth. In some areas introduced shrubs are present include hebe, rhododendron, cotoneaster and Japanese skimmia. Where invasive non-native species are present, secondary code 48 (non-native) has been applied. This area of Open Mosaic Habitats on Previously Developed Land is likely to qualify as the HPI.		comprises a former industrial site where operation ceased in 2017 and since then the site has been left largely undisturbed. Habitats lies upon a gravel substrate which support a mosaic of scrub and young trees including bramble, goat willow, gorse, buddleia, dogwood and snowberry; ephemeral vegetation including perennial ryegrass, cock's foot, creeping bent, fescue sp., cock's foot, common ragwort, St John's wort, spear thistle, creeping thistle, dandelion, rush sp., as well as areas dominated by bryophyte species. Patches of bare earth are also present and there is also evidence of recent damage through the presence of tyre tracks along these areas of earth. In some areas

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
			introduced shrubs are present include hebe, rhododendron, cotoneaster and Japanese skimmia. Where invasive non-native species are present, secondary code 48 (non-native) has been applied. This area of Open Mosaic Habitats on Previously Developed Land is likely to qualify as the HPI.
Developed land; sealed surface (u1b)	Developed land; sealed surface is frequent within the Preliminary Order Limits of the corridor, mainly associated with roads, hardstanding within farms and industrial areas.	Developed land; sealed surface is abundant within the Preliminary Order Limits of the spurline, associated with industrial areas and roads.	Developed land; sealed surface is abundant within the Preliminary Order Limits of the spurlines, associated with large areas of concrete and tarmac hardstanding as well as roads.
Buildings (u1b5)	Buildings are rare within the Preliminary Order Limits of the corridor, associated with small structures used to house animals.	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
Artificial unvegetated, unsealed surface (u1c)	Artificial unvegetated, unsealed surface is occasional within the Preliminary Order Limits of the corridor, found along agricultural and access tracks where the substrate is stone, gravel or mud.	Habitat not recorded	Habitat not recorded
Built linear features (u1e)	Built linear features are frequent within the Preliminary Order Limits of the corridor, mainly in the form of fences.	Habitat not recorded	Habitat not recorded
u1 17 (ruderal/ ephemeral)	Urban habitats supporting patchy ruderal/ephemeral vegetation are occasional within the Preliminary Order Limits of the spurlines, associated with abandoned areas which are beginning to be sparsely colonised with species present include Yorkshire fog, ribwort plantain, bramble, willowherb sp., common nettle, common hogweed, black medic, tufted hair grass, false oat grass, cock's foot, broad leaved dock, speedwell sp., ragwort sp., dandelion, cranesbill sp. and Himalayan balsam. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied.	Habitat not recorded	Urban habitats supporting patchy ephemeral vegetation are occasional within the Preliminary Order Limits of the spurlines, associated with abandoned areas which are beginning to be colonised with low growing vegetation.

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
Standing open water and canals (r1)	Ditches (r1 191) are occasional within the Preliminary Order Limits of the corridor, mostly associated with arable and pastoral fields and often adjacent to hedgerows or lines of trees. They measure between 1-3m wide and have varying water levels and generally a slow flow rate. Water quality is often poor and ditches are likely to be impacted by run-off from nearby agricultural fields. Banks are usually steep and ruderal vegetation, grasses and scrub are common along the banksides, with perennial ryegrass, broad-leaved dock, creeping buttercup, square-stemmed willowherb, bracken, dandelion, ribwort plantain, hard rush, cleavers, primrose, cow parsley, a range of bryophyte species and bramble most commonly recorded. Himalayan balsam was occasionally recorded. Limited aquatic in-channel or marginal vegetation was recorded in most ditches, though where present includes duckweed, fool's watercress, hard rush, water forget-me-not, brooklime and water starwort. Willow is found along the edge of some ditches. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied.	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
Standing open water and canals (r1)	Habitat not recorded	Habitat not recorded	A small man-made settlement waterbody is also present surrounded by hardstanding with rubble banks. No vegetation is present within or at the edge of the waterbody. Secondary code 362 (Artificial lake or pond) has been applied.
Eutrophic standing waters (r1a)	Ponds are rare within the Preliminary Order Limits of the corridor and they are all classed as eutrophic standing water. Five ponds lie within arable or pastoral fields and are typically surrounded by lines of trees, woodland or scrub. Marginal and aquatic vegetation is limited. Bankside vegetation often includes common nettle and bramble. One waterbody has formed within the footprint of a circular building which was demolished between 2019 and 2020 (also described in Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins). This waterbody is between 1-3m deep and surrounded by open mosaic habitat. There are patches of common reed and bulrush at the edge	Habitat not recorded	A waterbody has formed within the footprint of a circular building which was demolished between 2019 and 2020 (also described in Central Hub HAGI to Partington HAGI). This waterbody is between 1-3m deep and surrounded by open mosaic habitat. There are patches of common reed and bulrush at the edge of the waterbody. Secondary code 362 (Artificial lake or pond) has been applied.

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	of the waterbody. Secondary code 362 (Artificial lake or pond) has been applied.		
Canal (r1e)	The Bridgewater Canal bisects the Preliminary Order Limits of the corridor, where it measures approximately 13m wide. Both banks support modified grassland. Impacts to the canal will be avoided through trenchless crossing.	Habitat not recorded	Habitat not recorded
Other rivers and streams (r2b)	There are several watercourses which cross the Preliminary Order Limits of the corridor, described below: • Whitely Brook (Grid reference: SJ 60853 78371) is a small (approximately 1m wide) watercourse with steep banks between agricultural fields with a moderate flow and clear water. An established tree line adjacent to the watercourse provides significant shading. The banks are vegetated with tall herbs and grasses. • Gale Brook (Grid reference: SJ 65392 81244) is a small (approximately 1m wide) watercourse between agricultural fields. The banks are heavily vegetated with tall herbs and scrub. Stands of Himalayan balsam are	Habitat not recorded	Habitat not recorded

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	present. The water is clear and has a moderate flow. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied. • Crowley Brook (Grid reference: SJ 67666 82729) is a small (approximately 1m wide) watercourse between a horse-grazed field and rural road. Approximately 50% of the watercourse is shaded by hawthorn trees. The banks are steep and comprise earth and are mainly vegetated with grasses as well as red campion, common nettle and common hogweed on bank. • Agden Brook (Grid reference: SJ 71796 87866) is a small (approximately 1m wide) watercourse between agricultural fields which flows into the River Bollin within the Preliminary Order Limits. The watercourse has steep banks with sparse bankside vegetation, including perennial ryegrass, dock sp., bramble, cow parsley, common nettle, willowherb sp., colt's foot, lesser celandine, creeping buttercup, ivy, dandelion, speedwell sp., vetch sp., thistle sp., ragwort sp., cleavers and wild garlic. Occasional hard rush and giant		

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	hogweed are also present. Where invasive non-native species are present, such as giant hogweed, secondary code 48 (non-native) has been applied. • The River Bollin (Grid reference: SJ 71804 87905) measures approximately 8m wide where it bisects the Preliminary Order Limits. The banks are steep and comprise earth and are vegetated with bramble scrub and modified grassland to the south and tall herb vegetation to the north. Impacts to the river will be avoided through trenchless crossing. • Caldwell Brook (, Grid reference: SJ 72994 90229) is a small (approximately 2m wide) watercourse which runs at the edge of the Preliminary Order Limits for approximately 1km before being crossed by the pipeline. Over this distance the character of the watercourse varies, though the banks are largely shallow. The watercourse runs between agricultural fields, however along most of its length an approximately 5-10m margin of rough grassland and tall herbs is present, with scattered trees. The water is clear and has a moderate flow.		

Habitats	Line 3 Corridor - Central Hub HAGI to Partington HAGI	Warburton HAGI to Warburton HIB	Partington HAGI to Partington HIB, Partington HAGI to SAICA, Partington HAGI to Basell Polyolefins
	• Sinderland Brook (Grid reference: SJ 73033 90520) is a stream measuring approximately 4m wide where it crosses the Preliminary Order Limits. It has a moderate flow, clear water and steep 3m high banks. Marginal vegetation is limited to the species found on the adjacent modified grassland fields including perennial ryegrass, common nettle, cow parsley and broad-leaved dock.		

Table 5C 3.4 Summary of habitats throughout land within the Preliminary Order Limits of the northern corridor

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
Other Neutral Grassland (g3c)	Other neutral grassland is occasional within the Preliminary Order Limits of the corridor, mainly found along roadsides and arable field margins. Grass species present typically include cock's foot, false oat grass, perennial ryegrass and Yorkshire fog. Herbs present typically include dock sp., creeping buttercup, dandelion, ribwort plantain, mugwort, common fleabane, Canadian fleabane, common chickweed, ragwort sp., yarrow, great willowherb, field bindweed, creeping thistle, common nettle and common knapweed. Scattered bramble is often present. Where invasive non-native species are present, such as Japanese knotweed, secondary code 48 (non-native) has been applied. Discrete areas of other neutral grassland also exist within Moore Nature Reserve LWS, supporting Yorkshire fog, cock's foot, false oat grass, perennial ryegrass, common nettle, greater willowherb, mugwort, dandelion, ribwort plantain, greater plantain, hedge bedstraw, common fleabane, creeping thistle, dock sp., yarrow, creeping cinquefoil, bird's foot trefoil, common vetch, silverweed, meadow buttercup, ribwort plantain and bracken as well as scattered bramble.
Modified Grassland (g4)	Modified grassland is frequent within the Preliminary Order Limits of the corridor, associated with grazed pasture (particularly horse and sheep grazed) and silage production. Sward height varies depending on the time of year surveyed and management practices. Grasses dominate the sward and species present typically include perennial ryegrass, Yorkshire fog, rough meadow grass, annual meadow grass and soft brome with less frequent timothy. Herb species typically include white clover, creeping buttercup, ribwort plantain, selfheal, spear thistle and broad-leaved dock. Where stands of tall herbs are present, secondary code 16 (Tall herb) has been applied. In wetter locations soft rush is locally abundant. Where scattered trees are present, secondary code 11 (scattered trees) has been applied. Where scattered scrub is present, secondary code 10 (scattered scrub) has been applied. Some roadside margins and field margins (those classified as Arable field margins c1a are described separately) have a greater species richness, with false oat grass, cock's foot, creeping bent, rosebay willowherb, cow parsley, reed canary grass, bird's foot trefoil, white clover, lesser trefoil, daisy, greater plantain, ribwort plantain, common fumitory, field pansy, soft rush, creeping buttercup, yarrow and hairy tare recorded. An area of modified grassland along the banks of the River Mersey (Grid reference: SJ 56361 86527) is dominated by Yorkshire fog with infrequent broad-leaved dock, cleavers, common nettle and soft rush. The grassland has a

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
	tussocky appearance and there was no evidence of grazing. This area of modified grassland was highlighted as an area supporting HPI Coastal saltmarsh during the desk study, however, based on species composition present and lack of zonation it is not considered to qualify.
Wet woodland (w1d)	Wet woodland is rare within the Preliminary Order Limits of the corridor, found in a single location to the west of Fiddlers Ferry Gold Club (Grid reference: SJ 55007 86756), in a depression surrounded by lowland mixed deciduous woodland. The canopy is dominated by birch sp., and willow sp. with occasional hawthorn recorded towards the edges within the understorey. The field layer and ground flora are sparse, and where present include aquatic vegetation including common reed and yellow iris. The wet woodland parcel identified within the Preliminary Order Limits is likely to qualify as the HPI.
Lowland mixed deciduous woodland (w1f)	Lowland mixed deciduous woodland is rare within the Preliminary Order Limits of the corridor, largely found within Moore Nature Reserve LWS where woodland exists within a mosaic of grassland, scrub, standing open water and wetland habitats. Throughout the northern corridor, lowland mixed deciduous woodland is present at: • Woodland within Moore Nature Reserve LWS dominated by sessile oak with frequent hazel, hawthorn, ash and sycamore (Grid reference SJ 57459 85811). Trees are mostly of mature age. Elder were recorded in the understorey and the field layer and ground flora includes garlic mustard, common nettle, red campion, bramble and fern sp. Himalayan balsam was recorded within the woodland. • Woodland within Moore Nature Reserve LWS dominated by silver birch and English oak, with willow sp., silver birch and ash (Grid reference: SJ 57866 85956). Trees are of semi-mature to mature age. Hazel, dogwood and bramble were recorded in the understorey. The field layer and ground flora are limited, supporting grasses, Spanish bluebell, cleavers, common nettle, bramble and raspberry. • Woodland within Moore Nature Reserve LWS dominated by silver birch, ash, sycamore, oak and wild cherry (Grid reference: SJ 58590 85796). Trees are of semi-mature to mature age. Rowan, holly, hawthorn and elder were recorded in the understorey. The field layer and ground flora are limited, supporting common nettle, garlic mustard, bramble, bracken and a range of bryophyte species. • Woodland on the banks of the Bridgewater Canal dominated by alder, sycamore, beech, willow sp. and mature oaks (Grid reference: SJ 58939 84793). Hawthorn, holly, hazel and dogwood were recorded in the understorey.

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
	The field layer and ground flora support dominant ivy, bracken, bramble, bluebell, daffodil, common nettle, perennial ryegrass and creeping buttercup. • Woodland to the west of Fiddlers Ferry Golf Club (Grid reference: SJ 54935 86793) dominated by sycamore, elm sp., cherry, oak sp., alder and black poplar (dominant in the western corner of the woodland.) in the canopy, and hawthorn, blackthorn, elder, field maple and elm sp. in the understorey. The field layer and ground flora support common nettle, ground ivy, bramble, common hogweed, cleavers, creeping buttercup, meadow buttercup, cow parsley, red campion, willowherb sp., cowslip, daisy, dandelion, common ragwort, herb Robert., common vetch, dove's foot cranesbill, meadowsweet. forget me not sp., Spanish bluebell and rosebay willowherb. Himalayan balsam was recorded within the woodland. • Where invasive non-native species are present, such as Himalayan balsam and rhododendron, secondary code 48 (non-native) has been applied. The lowland mixed deciduous woodland parcels identified within the Preliminary Order Limits are likely to qualify as the HPI.
Other woodland; broadleaved (w1g)	Other woodland; broadleaved is occasional within the Preliminary Order Limits of the corridor and is mainly concentrated within Moore Nature Reserve LWS and surrounding habitats, as well as small discrete areas associated with roadsides, canals and agricultural land. Within Moore Nature Reserve LWS, woodland forms a mosaic with grassland, scrub, standing open water and wetland habitats. Areas classed as other woodland; broadleaved typically support young trees with species in the canopy including oak, silver birch, willow sp., alder, ash and sycamore. The understorey in these woodlands typically include hazel, hawthorn and elder. The field layer and ground flora are generally limited to perennial ryegrass, Yorkshire fog, fescue sp., cock's foot, common nettle, cleavers, garlic mustard, common hogweed, broad-leaved dock and ground ivy. Himalayan balsam is common within these woodlands. Where invasive non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied.
Line of trees (w1g6)	Lines of trees are uncommon within the Preliminary Order Limits of the corridor, associated with field boundaries, roadsides and occasionally with watercourses. Trees are mostly semi-mature to mature and features are species-rich. Species present include oak, hawthorn, sycamore, whitebeam (usually found along roads), beech, rowan,

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
	cherry, silver birch, apple, ash, willow sp., hawthorn and field maple. Where associated with ditches, species usually present include goat willow and alder.
Hedgerow (priority habitat) (h2a)	Hedgerows are abundant throughout land within the Preliminary Order Limits of the corridor, typically found at field boundaries and occasionally associated with ditches. There is a mix of intact and defunct hedgerows, some hedgerows have trees, and there are varying levels of management. The majority of hedgerows are species-poor and dominated by hawthorn. Other species frequent in hedgerows, however usually not dominant, are sycamore, silver birch, elder, hazel, blackthorn, field maple, oak, dogwood, holly. Where present, standard trees include oak, cherry, ash and horse chestnut. Bramble is also present within most hedgerows. Where invasive non-native species are present, such as cotoneaster, secondary code 48 (non-native) has been applied. Field margins are common alongside hedgerows, though a number of hedgerows lack a margin where land has been cultivated or grazed to the hedgerow base. Where present, field margins are usually 1-2m in width and consist of species-poor modified grassland and ruderal vegetation that typically reflects the intensive agricultural within the adjacent fields; species usually present include perennial ryegrass, Yorkshire fog, cock's foot, creeping bent, dandelion, speedwell sp., creeping thistle, spear thistle, common nettle, dock sp., common hogweed, greater willowherb, ribwort plantain, cow parsley, poppy sp., scentless may weed, yarrow and groundsel. Other less commonly recorded species include barren brome, tall fescue, false oat-grass, bush vetch, field horsetail, foxglove and red clover. All native hedgerows over 20m in length are likely to qualify as the HPI.
Gorse scrub (h3e)	Gorse scrub is rare within the Preliminary Order Limits of the corridor and found at a woodland edge on the banks of the Manchester Ship Canal (Grid reference: SJ 58924 85723) and within Fiddlers Ferry Gold Club (Grid reference: SJ 55450 86664). Infrequent buddleia, bramble, goat willow, Japanese knotweed and broom are present amongst the scrub. Where invasive non-native species are present, such as Japanese knotweed, secondary code 48 (non-native) has been applied.
Mixed scrub (h3h)	Mixed scrub is rare within the Preliminary Order Limits of the corridor and is associated with woodland edges and discrete patches within agricultural land and industrial areas.

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
	Species present typically include dog wood, blackthorn, hawthorn, silver birch, goat willow, hazel, gorse, broom and elm as well as alder where near watercourses. Bramble is often abundant but not dominant. The field layer within scrub habitats is generally limited to rough grassland and ruderal species such as cock's foot, Canadian fleabane and cow parsley. Himalayan balsam, Japanese knotweed and cotoneaster sp. are occasionally present, particularly within Moore Nature Reserve LWS. Where invasive non-native species are present, secondary code 48 (non-native) has been applied.
Bramble scrub (h3d)	Bramble scrub is rare within the Preliminary Order Limits of the corridor and found along roadsides, railways and discrete patches within industrial areas and woodlands. Bramble is the dominant species present, forming stands typically 1.5-2m high with sparse field layers, occasionally supporting rough grassland and ruderal species including cock's foot, false oat-grass, broom, creeping thistle, hedge bindweed, common nettle, cleavers, willowherb sp., broad-leaved dock, cow parsley, field horsetail, meadow vetchling, hairy tare and St John's wort sp. Where scattered bracken is present, secondary code 12 (scattered bracken) has been applied.
Reedbeds (f2e)	Reedbeds are rare within the Preliminary Order Limits of the corridor, however several discrete areas are found close to the River Mersey within Upper Moss Side Farm LWS and Moore Nature Reserve LWS. These reedbeds lies within a mosaic of woodland, grassland, standing open water and scrub habitats. Reedbeds are dominated by common reed, with occasional Yorkshire fog, common nettle, greater plantain, common hogweed and red campion also present. Himalayan balsam was also recorded in reedbeds within Moore Nature Reserve LWS. The reedbeds are characterised by areas of open water and scattered trees. In some areas willow and bramble scrub encroaches from adjacent woodlands. Where scattered scrub is present, secondary code 10 (scattered scrub) has been applied. Where invasive non-native species are present, secondary code 48 (non-native) has been applied. Reedbeds are likely to qualify as the HPI.
Other swamps (f2f)	Other swamps are rare within the Preliminary Order Limits of the corridor and found in one location close to the River Mersey within Moore Nature Reserve LWS. Reed canary grass dominates with species such as Yorkshire fog, common nettle and common hogweed found in discrete patches. Here, secondary code 16 (Tall herb) has been applied.

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
Arable and horticulture (c1)	Fields which could not be classified to Level 4 of the Primary Habitat Hierarchy, where crops were not present during survey, have been classified to the Level 3 habitat.
Arable margins sown with wildflowers or a pollen and nectar mix (c1a6)	Arable field margins are rare throughout the Preliminary Order Limits of the corridor. Two locations have been identified where arable field margins are managed for wildlife. These fields are identified in the Countryside Stewardship Agreement Management Areas (Middle Tier) and margins were approximately 20-30m wide. Grass species present include perennial ryegrass, cock's foot, false oat grass and Yorkshire fog. Forbs present include white clover, red clover, borage, scentless mayweed, bird's foot trefoil, ribwort plantain, shepherd's purse, bush vetch, cow parsley, willowherb sp., spear thistle, bristly oxtongue and poppy sp. Arable field margins sown with wildflowers or a pollen and nectar mix are likely to qualify as the HPI (Arable field margins).
Temporary grass and clover leys (c1b)	Arable fields with temporary grass cover are frequent throughout the Preliminary Order Limits of the corridor. Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.
Arable (Cereal crops c1c and Non-cereal crops c1d)	Arable fields are abundant throughout the Preliminary Order Limits of the corridor. Both cereal and non-cereal crops are cultivated within large fields, often bounded by hedgerows and occasionally by ditches. Crops grown include wheat and oil seed rape. Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.
Horticulture (c1f)	Arable land used for horticulture is rare within the Preliminary Order Limits of the corridor, comprising two small fields used as a nursery for plants associated with a garden centre.
Open Mosaic Habitats on Previously	Open Mosaic Habitats on Previously Developed Land is rare within the Preliminary Order Limits and found at a single location to the north of the Manchester Ship Canal. The northern corridor and two spurlines (Higher Walton HAGI to Solvay and Higher Walton HAGI to Novelis Latchford) run through this area which has undergone

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
Developed Land (u1a)	significant human disturbance and was last cleared in 2016 according to Google Earth imagery (Grid reference: SJ 58760 85715). Vegetation is short and patchy and lies upon a gravel substrate. To the east the land is more vegetated, with a higher proportion of grassland species, to the west there is a higher proportion of bare ground, however in both areas a mosaic of communities is present. Grasses present include Yorkshire fog, perennial ryegrass, fescue sp., cock's foot and common reed. Hard and soft rush are scattered throughout. Forbs are frequent and include bird's foot trefoil, black medick, evening primrose, common fleabane, broadleaved dock, creeping and spear thistle, dandelion, teasel, herb robert, creeping buttercup, ribwort plantain, bittercress sp., willowherb sp. and chickweed. Bryophyte species are also abundant. Buddleia, goat willow and birch saplings are present, particularly towards the edges of the land. This area of Open Mosaic Habitats on Previously Developed Land is likely to qualify as the HPI.
Developed land; sealed surface (u1b)	Developed land; sealed surface is frequent within the Preliminary Order Limits of the corridor, mainly associated with roads and hardstanding within industrial areas.
Artificial unvegetated, unsealed surface (u1c)	Artificial unvegetated, unsealed surface is rare and scattered throughout the Preliminary Order Limits of the corridor along agricultural and access tracks and active building sites, where the substrate is stone, gravel or mud.
Built linear features (u1e)	Built linear features are frequent within the Preliminary Order Limits of the corridor, largely in the form of fences and surfaced paths.
Eutrophic standing waters (r1a)	There are several ponds within the mosaic of habitats in Moore Nature Reserve LWS and these are all classed as eutrophic standing water. Generally, the water and mud appear dark and marginal and aquatic vegetation is limited, particularly within ponds surrounded by woodland. Where present, species recorded include common reed, pond sedge sp. and yellow flag iris. Bankside vegetation includes goat willow, bramble, common hogweed and bracken. Where the waterbody is known to be man-made, secondary code 362 (Artificial lake or pond) has been applied.

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
	Outside of Moore Nature Reserve LWS, there are eight ponds within the Preliminary Order Limits of the corridor. Three ponds are found within agricultural land and are immediately surrounded by ruderal vegetation, scattered trees and scrub. Some support emergent vegetation, including soft rush and yellow flag iris. Five ponds are found within Fiddlers Ferry Gold Club and range in size. They are typically surrounded by modified grassland and scattered trees, some support emergent vegetation including bulrush and hard rush.
Standing open water and canals (r1)	Ditches (r1 191) are occasional within the Preliminary Order Limits of the corridor, mostly associated with arable fields and often adjacent to hedgerows or lines of trees. They measure between 1-3m wide and have varying water levels and generally a slow flow rate. Water quality is poor and ditches are likely to be impacted by run-off from nearby agricultural fields. Banks are usually steep and ruderal vegetation, grasses and scrub are common along the banksides, with Yorkshire fog, common nettle, cleavers, cow parsley, lesser celandine, ground elder and bramble typically recorded. Himalayan balsam was recorded along one ditch. Limited aquatic in-channel or marginal vegetation was recorded. There are a number of ditches surrounding arable fields and reedbeds on flat land adjacent to the River Mersey. Common reed is frequent within these ditches and dominates in some cases. Where invasive non-native species are present within the ditch, such as Himalayan balsam, secondary code 48 (non-native) has been applied. There are a series of ditches within Moore Nature Reserve LWS, up to 2m wide with an imperceptible flow. They lie within woodlands therefore are entirely shaded by adjacent trees and contain significant leaf litter. In-channel vegetation is limited, with only occasional alder or willow. Bankside vegetation includes grasses, common reed, soft rush, hard rush, sedge sp., bramble, bracken, willowherb sp., hart's tongue fern, common nettle, cleavers and lesser celandine.
Canal (r1e)	There are three canals which bisect the Preliminary Order Limits of the northern corridor. The St Helen's Canal (Disused) LWS is approximately 16m wide where it crosses the Preliminary Order Limits, with engineered banks supporting modified grassland. The Manchester Ship Canal is approximately 40m wide where it crosses the Preliminary Order Limits, with engineered banks supporting woodland. The Bridgewater Canal is approximately 13m wide where it crosses the Preliminary Order Limits, supporting a tow path of modified grassland to the north and ruderal and scrub vegetation to the south. Impacts to all canals will be avoided through trenchless crossing.

Habitats	Line 4 Corridor – Central Hub HAGI to Clock Face HAGI
Rivers (priority habitat) (r2a)	The River Mersey bisects the Preliminary Order Limits of the northern corridor and at the point of crossing measures approximately 100m wide. The southern bank comprises a mud bank supporting tussocky modified grassland, whilst to the north part of the bank is engineered and part is dominated by common reed. Impacts to the river will be avoided through trenchless crossing. The river lies within Upper Mersey Estuary LWS. This river qualifies as the HPI (Rivers) this section of the River Mersey lies within Upper Mersey Estuary LWS, which is designated for open running water.
Other rivers and streams (r2b)	A single small watercourse, Penketh Brook (Grid reference: SJ 54419 87636) also crosses the Preliminary Order Limits. This is a small (approximately 1m wide) watercourse with steep banks between arable fields, which flows into the River Mersey approximately 2.5km downstream. A gappy tree line is present on one bank, providing some limited shading to the watercourse. The banks are sparsely vegetated with ruderal vegetation and grasses. The water appears clear and has a moderate flow rate.

Table 5C 3.5 Summary of habitats throughout land within the Preliminary Order Limits of the northern spurlines

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
Lowland dry acid grassland (g1a)	Habitat not recorded	Lowland dry acid grassland is rare within the Preliminary Order Limits of the spurline and only found within Moore Nature Reserve LWS. Acid grassland likely exists in this location due to the history of the sits as a sand quarry. The grassland supports birch, oak and alder saplings and scattered mature pine trees. The ground flora supports sheep's fescue, Yorkshire fog, field wood rush, hard rush, white clover, greater plantain, ribwort plantain, spear thistle, creeping thistle, bird's foot trefoil, common vetch, dandelion, field forget me not, common	Habitat not recorded	Habitat not recorded	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
		ragwort, creeping buttercup, sheep's sorrel, teasel, bramble and a range of bryophyte species. Anecdotal records found on information boards within the reserve indicate the presence of common centaury, bee orchid and marsh orchid. Lowland dry acid grassland is likely to qualify as the HPI.			
Other Neutral Grassland (g3c)	Other neutral grassland is frequent within the Preliminary Order Limits of the spurline, found at the western end of the Solvay Interox industrial area. Areas of grassland are largely	Other neutral grassland is rare within the Preliminary Order Limits of the spurline, associated with small areas of unmanaged grassland. Grass species typically present include perennial ryegrass, brome sp., Yorkshire	Other neutral grassland is occasional within the Preliminary Order Limits of the spurline, most frequently found along roadside margins. Grass species present typically include cock’s foot, false oat	Other neutral grassland is rare within the Preliminary Order Limits of the spurline, associated with roadsides and field margins. Grasses present include cock’s foot, tall fescue,	Other neutral grassland is abundant within the Preliminary Order Limits of the spurlines, associated with roadsides and amenity areas. Grasses present include fescue sp., perennial ryegrass, cock’s foot and quaking grass. Herbs present

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
	unmanaged and are surrounded by scrub and woodland. Grass species present include fescue sp., Yorkshire fog, meadow grass sp. and false oat grass. Herbs present include ribwort plantain, bird's foot trefoil, St John's wort sp., forget me not sp., meadow buttercup, common ragwort, teasel as well as scattered hard rush and bramble.	fog and cock's foot. Herbs typically present include willowherb sp., bittercress sp., creeping buttercup, yarrow, dandelion, common nettle, spear thistle, red campion, ribwort plantain, cow parsley, cleavers, giant hogweed, common reed as well as scattered bramble. Where invasive non-native species are present, such as giant hogweed, secondary code 48 (non-native) has been applied.	grass, perennial ryegrass and Yorkshire fog. Herbs present typically include dock sp., creeping buttercup, dandelion, ribwort plantain, mugwort, common fleabane, Canadian fleabane, common chickweed, ragwort sp., yarrow, greater willowherb, field bindweed, creeping thistle, common nettle and common knapweed. Scattered bramble is often present.	perennial ryegrass and Yorkshire fog. Herbs present include common knapweed, great willowherb, field bindweed, creeping thistle, common nettle and dock sp. Scattered bramble is often present.	include common knapweed, curled dock, broadleaved dock, creeping buttercup, dandelion, daisy, speedwell sp., ribwort plantain, mugwort, common fleabane, common chickweed, ragwort sp., yarrow, common vetch, bird's foot trefoil, cowslip and a range of bryophyte species.
Modified Grassland (g4)	Habitat not recorded	Modified grassland is frequent within the Preliminary Order Limits of the spurline, associated with agricultural fields and	Modified grassland is frequent within the Preliminary Order Limits of the spurline, associated with grazed pasture and	Modified grassland is occasional within the Preliminary Order Limits of the spurline, associated with roadside	Modified grassland is rare within the Preliminary Order Limits of the spurlines, associated with the roadside. The sward is

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
		recreational land. Grasses dominate the sward and species present typically include perennial ryegrass and Yorkshire fog. Herbs present include creeping thistle, daisy, garlic mustard, wild strawberry, broadleaved dock, dandelion, common nettle and white clover.	roadsides. Grasses dominate the sward and species present typically include perennial ryegrass, Yorkshire fog, cock's foot, rough meadow grass, annual meadow grass, meadow foxtail and soft brome with less frequent timothy. Herb species typically include white clover, dandelion, common chickweed, creeping buttercup, ribwort plantain, selfheal, spear thistle and broad-leaved dock. Sward height varies depending on the time of year surveyed and management practices.	verges and small areas of amenity use within industrial estates. Grasses present typically include perennial ryegrass, Yorkshire fog, meadow grass sp., false oat grass and cock's foot. Herbs present typically include creeping buttercup, creeping thistle, yarrow, daisy, bristly oxtongue, broad-leaved dock, red dead nettle and dandelion. The sward is generally short and managed through regular mowing.	short and species present include perennial ryegrass, Yorkshire fog, fescue sp., dandelion, ribwort plantain, white clover, broad-leaved dock, daisy, speedwell sp., bittercress sp., willowherb sp. and a range of bryophyte species.

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
Bracken (g1c)	Bracken is rare within the Preliminary Order Limits of the spurline, found within a single location on the bankside of the Manchester Ship Canal.	Habitat not recorded	Habitat not recorded	Habitat not recorded	Habitat not recorded
Wet woodland (w1d)	Habitat not recorded	Wet woodland is rare within the Preliminary Order Limits of the spurline, found adjacent to the River Mersey upon a depressed area of land that was formerly a canal connecting the River Mersey with the Manchester Ship Canal, now Walton Locks LWS. The canopy is dominated by goat and crack willow with occasional sycamore	Habitat not recorded	Habitat not recorded	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
		and silver birch. Elder and blackthorn are occasional in the understorey. The field layer and ground flora are sparse, and where present include common hogweed, giant hogweed, cow parsley, butterbur, cleavers, wild angelica, common nettle, willowherb sp., bramble, hemlock water dropwort, fern sp., lesser celandine, dock sp., hart's tongue fern and a range of bryophyte species. Glades within the woodland support a higher proportion of ruderal species. Where invasive non-native species are present, secondary code 48 (non-native) has been			

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
		applied. The wet woodland parcel identified within the Preliminary Order Limits is likely to qualify as the HPI.			
Other woodland; broadleaved (w1g)	Other woodland; broadleaved is abundant within the Preliminary Order Limits of the spurline, comprising mainly woodland associated with railway and canal banksides. Trees are largely semi-mature to mature in age and species in the canopy include oak sp. and silver birch with occasional willow sp. Gorse and holly are occasional in the shrub layer. The	Other woodland; broadleaved is occasional within the Preliminary Order Limits of the spurline. Trees are typically of young to semi-mature age and species present within the canopy and understorey include silver birch, goat willow, alder, hawthorn, elder and sycamore. The field layer and ground flora are generally limited to ruderal vegetation.	Other woodland; broadleaved is rare within the Preliminary Order Limits of the spurline and includes a single area of woodland along a roadside. A range of species are present including alder, sycamore, grey willow, hawthorn, silver birch and ash. The shrub layer includes species such as blackthorn, hawthorn, elder and dogwood.	Other woodland; broadleaved is rare within the Preliminary Order Limits of the spurline, with a single location present to the north of Pendlebury Brook. The woodland is dominated by young to semi-mature sycamore, with hawthorn, willow and elm less frequently recorded. The field layer and ground flora are dominated by	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
	field and ground layer are usually limited, comprising scattered bramble scrub.			bramble, cleavers, red campion and willowherb.	
Line of trees (w1g6)	Habitat not recorded	Lines of trees are rare within the Preliminary Order Limits of the spurline, found along footpaths. Trees are largely of mature age and the most common species recorded include sycamore, alder and crack willow.	Lines of trees are common within the Preliminary Order Limits of the spurline, associated with field boundaries, roadsides and watercourses. Trees are mostly semi-mature to mature and features are usually species-rich. Species typically present include oak, sycamore, hawthorn, whitebeam, ash and goat willow. Where associated with ditches, alder is usually present.	Lines of trees are common within the Preliminary Order Limits of the spurline, associated with roadsides and areas of amenity use within industrial estates. Trees are mostly semi-mature to mature and features are species-rich. Species present include sycamore, silver birch, elder, common lime, ash and cherry.	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
Hedgerow (priority habitat) (h2a)	Habitat not recorded	Hedgerows are rare within the Preliminary Order Limits of the spurline and typically species-poor and dominated by hawthorn. Less commonly recorded species include willow sp., oak, gorse, silver birch and alder. Bramble is also present within most hedgerows. All native hedgerows over 20m in length are likely to qualify as the HPI.	Hedgerows are frequent within the Preliminary Order Limits of the spurline, associated with field boundaries. They are typically species-poor and dominated by hawthorn. Less commonly recorded species include sycamore, oak and holly. Bramble is also present within most hedgerows. Field margins are common alongside hedgerows, though a number of hedgerows lack a margin where land has been cultivated or grazed to the hedgerow base. Where present, field margins are usually 1-2m in width and	Hedgerows are frequent within the Preliminary Order Limits of the spurline, associated with field boundaries. Hedgerows are typically dominated by hawthorn, with less frequently recorded elder, hazel, willow sp., blackthorn, field maple, oak, cherry and ash. The field layer is typically limited and includes tall fescue, common nettle, common hogweed, dock sp. and creeping thistle. All native hedgerows over 20m in length are	Hedgerows are rare within the Preliminary Order Limits of the northern spurlines. A single young hedgerow is present upon modified grassland alongside a road. Species present within the hedgerow include hawthorn, holly, blackthorn, hazel and dog rose interspersed with young to semi-mature crab apple and cherry standards. All native hedgerows over 20m in length are likely to qualify as the HPI.

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
			consist of species-poor modified grassland and ruderal vegetation that typically reflects the intensive agricultural within the adjacent fields; species usually present include barren brome, cow parsley, common nettle, cleavers, creeping thistle and common hogweed. All native hedgerows over 20m in length are likely to qualify as the HPI.	likely to qualify as the HPI.	
Dense scrub (h3)	Dense scrub is rare within the Preliminary Order Limits of the spurline and associated with an area of dense	Habitat not recorded	Habitat not recorded	Dense scrub is the largest habitat within the Preliminary Order Limits of the spurline and comprises a former	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
	willow scrub to the north of the Manchester Ship Canal. This habitat is mapped as h3 as it comprises an area of scrub which cannot be classified to a Level 4 habitat.			agricultural field which has been neglected (secondary code 77) and as a result is dominated by young willow scrub. Other less frequently recorded species present include silver birch, oak, and hawthorn. The ground layer comprises Yorkshire fog, cock's foot, glaucous sedge, creeping buttercup, broadleaved dock, thistle sp., forget me not and hard rush.	
Blackthorn scrub (h3a)	Habitat not recorded	Habitat not recorded	Habitat not recorded	Habitat not recorded	Blackthorn scrub is rare within the Preliminary Order Limits of the spurline and found in a

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
					single location within an amenity area on a roadside. Blackthorn in dominant, with occasional dogwood and bramble.
Mixed scrub (h3h)	Mixed scrub is occasional within the Preliminary Order Limits of the spurline, found within industrial areas and at woodland edges. Species present typically include gorse, broom and bramble.	Mixed scrub is frequent within the Preliminary Order Limits of the spurline, found in a large area on the banks of the River Mersey. Species present include hazel, hawthorn, bramble, silver birch and willow sp. The field layer supports ruderal vegetation including common nettle, Japanese knotweed, Himalayan balsam, creeping buttercup, cleavers, cow parsley, dandelion, common hogweed and ground elder. Where invasive	Mixed scrub is occasional within the Preliminary Order Limits of the spurline, found at woodland edges. Species present typically include bramble, dog rose, elder, hawthorn, dogwood and silver birch with field layers supporting willowherb sp., common nettle, hedge bindweed and Canadian fleabane.	Habitat not recorded	Mixed scrub is occasional within the Preliminary Order Limits of the northern spurlines and is associated with small, discrete areas along roadsides. Species present typically include blackthorn, dogwood, rose, willow-leaved cotoneaster, hawthorn and bramble. The field and ground layer are limited, comprising cleavers, cow parsley, dandelion, daisy and ivy.

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
		non-native species are present, such as Himalayan balsam, secondary code 48 (non-native) has been applied.			
Bramble scrub (h3d)	Bramble scrub is occasional within the Preliminary Order Limits of the spurline, found within industrial areas and at woodland edges. Bramble is the dominant species present, forming stands typically 1.5-2m high with field layers sparse, occasionally supporting tall herbs including common nettle, cleavers, common chickweed,	Habitat not recorded	Bramble scrub is occasional within the Preliminary Order Limits of the spurline, found along roadsides. Bramble is the dominant species present, forming stands typically 1.5-2m high with field layers sparse, occasionally supporting creeping thistle, hedge bindweed, common nettle and broom.	Habitat not recorded	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
	willowherb sp. and a range of bryophyte species.				
Reedbeds (f2e)	Habitat not recorded	Habitat not recorded	Habitat not recorded	Reedbeds are rare within the Preliminary Order Limits of the spurline and found in a single location along the northern bank of Pendlebury brook. Common reed dominates, with scattered bracken, common nettle, horsetail sp., common hogweed and willowherb sp. Reedbeds are likely to qualify as the HPI.	Habitat not recorded
Allotments (c1 910)	Habitat not recorded	A small area of allotments is present within the Preliminary Order Limits of the	Habitat not recorded	Habitat not recorded	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
		spurline, surrounded by woodland.			
Arable and horticulture (c1)			Several fields could not be classified to Level 4 of the Primary Habitat Hierarchy where crops were not present during survey and have therefore been classified to the Level 3 habitat.	Several fields could not be classified to Level 4 of the Primary Habitat Hierarchy where crops were not present during survey and have therefore been classified to the Level 3 habitat.	
Arable (Cereal crops c1c and Non-cereal crops c1d)	Habitat not recorded	Habitat not recorded	Arable fields are dominant throughout the Preliminary Order Limits of the spurline. Both cereal and non-cereal crops are cultivated within large fields, often bounded by hedgerows and occasionally by ditches. Crops grown	Arable fields are abundant throughout the Preliminary Order Limits of the spurline. Crops, such as wheat, are cultivated within fields which are typically bounded by hedgerows.	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
			include wheat, broad beans and oil seed rape. Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.	Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.	
Open Mosaic Habitats on Previously Developed Land (u1a)	Open Mosaic Habitats on Previously Developed Land is rare within the Preliminary Order Limits and found to the north of the Manchester Ship Canal. The northern corridor and two spurlines (Higher Walton HAGI to Solvay and Higher Walton HAGI to Novelis Latchford) run through this area which has undergone significant human disturbance and was last cleared in 2016 according to Google Earth imagery (Grid reference: SJ 58760 85715). Vegetation is short and patchy and lies upon a gravel substrate. To the east the land is more vegetated, with a higher proportion of grassland species, to the west	Habitat not recorded	Habitat not recorded	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
	there is a higher proportion of bare ground, however in both areas a mosaic of communities is present. Grasses present include Yorkshire fog, perennial ryegrass, fescue sp., cock's foot and common reed. Hard and soft rush are scattered throughout. Forbs are frequent and include bird's foot trefoil, black medick, evening primrose, common fleabane, broadleaved dock, creeping and spear thistle, dandelion, teasel, herb robert, creeping buttercup, ribwort plantain, bittercress sp., willowherb sp. and chickweed. Bryophyte species are also abundant. Buddleia, goat willow and birch saplings are present, particularly towards the edges of the land. This area of Open Mosaic Habitats on Previously Developed Land is likely to qualify as the HPI.				
Developed land; sealed surface (u1b)	Developed land; sealed surface is abundant within the Preliminary Order Limits of the spurline, associated with roads, footpaths and	Developed land; sealed surface is abundant within the Preliminary Order Limits of the spurline, associated with roads.	Developed land; sealed, surface is occasional within the Preliminary Order Limits of the spurline associated with roads and railways.	Developed land; sealed, surface is occasional within the Preliminary Order Limits of the spurline, associated with roads and hardstanding	Developed land; sealed, surface is abundant within the Preliminary Order Limits of the northern spurlines, associated with roads.

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
	industrial areas within Solvay Interox.			surrounding buildings.	
Artificial unvegetated, unsealed surface (u1c)	Habitat not recorded	Habitat not recorded	Artificial unvegetated, unsealed surface is rare within the Preliminary Order Limits of the spurline, associated with a single location which appears to comprise an area used for vehicle storage upon bare ground.	Habitat not recorded	Artificial unvegetated, unsealed surface is abundant within the Preliminary Order Limits of the northern spurlines, found as bare ground within an active building site.
Suburban/ mosaic of developed/ natural surfaces (u1d)	Habitat not recorded	Suburban/ mosaic of developed/ natural surfaces is abundant within the Preliminary Order Limits of the spurline and has been used to classify areas where the Preliminary Order Limits encompass both the	Habitat not recorded	Habitat not recorded	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
		road and front gardens of residential properties along the route to Novelis Latchford.			
Built linear features (u1e)	Built linear features are occasional within the Preliminary Order Limits of the spurline, in the form of fences.	Habitat not recorded	Habitat not recorded	Habitat not recorded	Habitat not recorded
Eutrophic standing waters (r1a)	Habitat not recorded	There are several ponds within the mosaic of habitats in Moore Nature Reserve LWS and these are all classed as eutrophic standing water.	There is a single small pond which lies at the edge of the Preliminary Order Limits within an arable field surrounded by scattered trees.	Habitat not recorded	Habitat not recorded
Canal (r1e)	Habitat not recorded	There is a single disused canal channel within the Preliminary Order Limits of the spurline which runs	Habitat not recorded	Habitat not recorded	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
		adjacent to the River Mersey, separated by a public footpath and areas of scrub. Whilst not within Walton Locks LWS, it is likely to be associated with this LWS. It is approximately 10m wide with stands of common reed at its banks, as well as willow sp., silver birch and alder.			
Other rivers and streams (r2b)	Habitat not recorded	Habitat not recorded	A single watercourse crosses the Preliminary Order Limits of the spurline. Pendlebury Brook (Grid reference: SJ 50197 91256) is a small (approximately 1m wide) watercourse with steep banks between arable fields. An established tree line	A single watercourse crosses the Preliminary Order Limits of the spurline. Pendlebury Brook (Grid reference: SJ 50836 90987) is a small (approximately 1m wide) watercourse which crosses the	Habitat not recorded

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
			adjacent to the watercourse provides significant shading. The banks are sparsely vegetated with ruderal vegetation and grasses. The water appears clear and has a moderate flow rate. The watercourse lies within Pendlebury Brook LWS.	Preliminary Order Limits of the spurline between an area of scrub and reedbed, which provide significant shading. This crossing lies approximately 1km east of the crossing described in the Clock Face HAGI to St Helens spurline. A short stretch of the banks are engineered as the watercourse approaches a culvert under a road, the rest of the riverbank is dominated by ruderal and scrub vegetation which overhangs the watercourse. The water was cloudy at	

Habitats	Higher Walton HAGI to Solvay	Higher Walton HAGI to Novelis Latchford	Clock Face HAGI to St Helens	Clock Face HAGI to Pilkington NGF	St Helens to Pilkington Greengate and St Helens to Glass Future
				the time of survey and had a slow flow rate. The watercourse lies within Pendlebury Brook LWS.	
Intertidal mudflats (t2d)	Habitat not recorded	Intertidal mudflats are rare within the Preliminary Order Limits of the spurline, associated with a stretch of the River Mersey. At this point, the river has limited tidal range in the estuary and the mudflats are a few metres wide, mainly comprising exposed mud/silt, sparsely vegetated with grasses and giant hogweed towards the banks. This area of intertidal mudflat is likely to qualify as the HPI.	Habitat not recorded	Habitat not recorded	Habitat not recorded

Table 5C 3.6 Summary of habitats throughout land within the Preliminary Order Limits of the Central Hub

Habitats	Central Hub
Other neutral grassland (g3c)	Other neutral grassland is rare within the Preliminary Order Limits of the Central Hub, found in a single location on an embankment, dominated by nettle, broadleaved dock and willowherb sp. with the secondary code 16 (Tall herb) applied.
Modified grassland (g4)	Modified grassland is abundant within the Preliminary Order Limits of the Central Hub, associated with large fields which appear to be mown. The sward is typically short and supports a low number of common species, including perennial ryegrass, Yorkshire fog, common nettle, creeping buttercup, broadleaved dock, curled dock, creeping thistle, spear thistle and dandelion.
Hedgerow (priority habitat) (h2a)	Hedgerows are abundant within the Preliminary Order Limits of the Central Hub, typically at field boundaries and occasionally associated with ditches. There is a mix of intact and defunct hedgerows, some hedgerows have trees, and there are varying levels of management. Most hedgerows were found to be species-poor, typically dominated by one or two native woody species, usually hawthorn or blackthorn. Other species frequent in hedgerows are hazel, elder, sycamore, holly, crab apple, field maple and dog rose. Bramble is also present within most hedgerows. Where present, standard trees include ash and oak. Field margins (usually 1-2m wide) are common alongside hedgerows, though a number of hedgerows lack a margin, where land has been cultivated or grazed to the hedgerow base. Where present, field margins generally consist of species-poor modified grassland and ruderal vegetation that typically reflects the intensive agricultural within the adjacent fields; species recorded include cock's foot, common nettle, cow parsley, broadleaved dock, dog's mercury, cleavers, creeping thistle, willowherb sp. and hedge woundwort. All native hedgerows over 20m in length are likely to qualify as the HPI.
Mixed scrub (h3h)	Mixed scrub is rare within the Preliminary Order Limits of the Central Hub, associated with ponds. Alder and willow scrub has developed around the three ponds with common nettle, cleavers and ivy dominant in the field and ground layer.

Habitats	Central Hub
Arable (Cereal crops c1c and Non-cereal crops c1d)	Arable fields are abundant throughout the Preliminary Order Limits of the Central Hub. Both cereal and non-cereal crops are cultivated within large fields, often bounded by hedgerows and occasionally by ditches. Field margins are usually no more than 2m wide, and mostly 1m or less. They are dominated by modified grassland and ruderal species, described in relation to hedgerows above.
Developed land; sealed surface (u1b)	Developed land; sealed surface is rare within Preliminary Order Limits of the Central Hub, associated with areas of hardstanding which are used for storage of trailers.
Artificial unvegetated, unsealed surface (u1c)	Artificial unvegetated, unsealed surface is rare within Preliminary Order Limits of the Central Hub, associated with gravel and aggregate areas with limited vegetation cover. This area appears to be regular disturbance by plant traffic.
Standing open water and canals (r1)	Ditches (r1 191) are occasional within the Preliminary Order Limits of the Central Hub, typically measuring 1-2m wide and mostly found between agricultural fields alongside hedgerows which provide significant shading. No aquatic in-channel or marginal vegetation was recorded. Bankside vegetation typically includes greater willowherb, common nettle and bramble.
Eutrophic standing waters (r1a)	There are four ponds within the Preliminary Order Limits of the Central Hub and these are all classed as eutrophic standing water. The ponds lie within arable or pastoral fields and are surrounded by a small area of scrub or rough grassland. Willow sp. and alder grow at the margins and within some ponds, providing significant shading. Marginal and aquatic vegetation is limited. Bankside vegetation often includes common nettle, cleavers, common hogweed, creeping thistle, cow parsley, and bramble.

Habitats	Central Hub
Other rivers and streams (r2b)	There is a single watercourse within the Preliminary Order Limits of the Central Hub, described below: Small watercourse (Grid reference: SJ 60151 77707) flows within ruderal vegetation between agricultural fields. The watercourse is approximately 0.5m wide and less than 10cm deep with a slow flow and a sandy substrate. The watercourse is shaded by trees on the northern bank. Opposite leaved golden saxifrage is rare along the watercourse.

3.2. Protected Species

3.2.1. The following tables provide a summary of the suitability of habitats within the corridors and associated spurlines to support protected species.

Badger

3.2.2. Suitable habitat for badger foraging, commuting, and sett construction is present across the Preliminary Order Limits, summarised in **Table 5C 3.7**. Incidental evidence of badger was noted during the PEA and used to inform future surveys.

Table 5C 3.7 Summary of habitats suitable for badger throughout land within the Preliminary Order Limits

	Badger habitat
Western corridor and associated spurlines	Sett creation opportunities are present within the Preliminary Order Limits, and areas likely to be of the greatest suitability for badger are woodland within East Clifton Tip LWS and woodland adjacent to Clifton Cloughs B LWS. Large expanses of arable land, frequently bounded by hedgerows will also provide suitable sett creation, foraging and commuting habitat.
Southern corridor	Sett creation opportunities within the Preliminary Order Limits are associated with extensive areas of woodland, such as habitats within Weaver Valley/Newbridge Pool LWS, and abundant hedgerows. Suitable foraging and commuting habitat is also widely present associated with arable margins, hedgerows, grassland and pastures.
Eastern corridor and associated spurlines	Sett creation opportunities are limited to the few areas of woodland and abundant hedgerows throughout the Preliminary Order Limits. Suitable foraging and commuting habitat is also widely present associated with arable margins, hedgerows, grassland and pastures.
Northern corridor and associated spurlines	Habitats suitable for badger are frequent within the Preliminary Order Limits. Woodland, predominantly found within Moore Nature Reserve LWS, and hedgerows which are abundant throughout the Preliminary Order Limits, are suitable for sett creation. Suitable foraging and commuting habitat is also widely present associated with arable margins, hedgerows, grassland and pastures.
Central Hub	Sett creation opportunities are limited within the Preliminary Order Limits to the hedgerows demarcating agricultural fields, and these habitats will also provide some suitability for foraging and commuting.

Otter and Water vole

3.2.3. The PEA recorded rivers, streams and ditches within the Preliminary Order Limits that have potential to support otter and/or water vole and these are summarised in **Table 5C 3.8**.

Table 5C 3.8 Summary of habitats suitable for otter and water vole throughout land within the Preliminary Order Limits

	Otter	Water Vole
Western corridor and associated spurlines	Several watercourses and canals cross the Preliminary Order Limits and these are suitable for foraging and commuting otter. Mature woodland and reedbeds found in proximity to the River Weaver and Weaver Navigation Canal are suitable for supporting potential resting habitat. Within Frodsham, Helsby and Ince Marshes LWS a network of ditches are suitable for commuting otter.	Ditches and small watercourses are abundant throughout the Preliminary Order Limits and are suitable for supporting water vole. There are few ponds present within the Preliminary Order Limits and these are isolated from other waterbodies and located within woodland or heavily shaded by trees and unlikely to be suitable for water vole.
Southern corridor	Where the River Weaver bisects the Preliminary Order Limits within Weaver Valley/Newbridge Pool LWS, the river valley supports semi-natural woodland and these habitats are suitable for foraging, commuting and resting otter. There are also several other small watercourses and canals which are suitable for these behaviours.	Occasional ditches and small watercourses within the Preliminary Order Limits are suitable for water vole and support plentiful bankside vegetation, providing cover and a food source. Some watercourses lie within heavily shaded woodland and are of lower suitability for water vole. Ponds are limited throughout the Preliminary Order Limits, and typically small and isolated from other waterbodies and lie within habitat with dense vegetation which shades the water edge and makes them of low suitability for water vole.
Eastern corridor and associated spurlines	The Preliminary Order Limits support numerous small rivers which are suitable for foraging otter, and occasional ditches which are suitable for	There are numerous small rivers and ditches within the Preliminary Order Limits which are suitable for water vole. Those which lie within agricultural fields may be subject to

	Otter	Water Vole
	commuting. Few areas of semi-natural woodland are present in proximity to watercourses, and therefore resting opportunities may be limited.	disturbance. The few ponds throughout the Preliminary Order Limits are small and isolated from other waterbodies and in dense vegetation which shades the water edge and makes them of low suitability for water vole.
Northern corridor and associated spurlines	Numerous watercourses, including canals, are present within the Preliminary Order Limits and are suitable for foraging and commuting otter. Extensive areas of woodland interspersed with reedbeds are present close to the River Mersey and Manchester Ship Canal and these areas may be suitable for supporting resting opportunities. Ditches and small streams occasionally intersect the landscape and are suitable for commuting and foraging otter.	Small watercourses and ditches are present within the Preliminary Order Limits and these are suitable for water vole. These often lie within agricultural fields and therefore may be disturbed and lack cover. The Preliminary Order Limits also support a small number of ponds which are located within agricultural land or within dense woodland and are unlikely to be suitable for water vole due to significant shading of the waterbody edge.
Central Hub	There is a single watercourse within the Preliminary Order Limits, however this is small and likely to be unsuitable as a foraging resource but may be suitable for commuting. Ditches which intersect the agricultural landscape may provide sub-optimal suitability for commuting, however they lie up to 1km from the nearest larger watercourse.	The ditches and small watercourse within the Preliminary Order Limits have some suitability for supporting water vole. There are ponds present at the boundaries of arable fields and these are of limited suitability due to the dense vegetation which significantly shades the water edge.

Bats

3.2.4. The PEA survey did not include detailed roost inspections, although the individual trees and blocks of woodland within the survey area were subject to an initial high-level assessment for their suitability for roosting bats (with particular emphasis on those likely to be directly impacted), and any incidental records of roosting opportunities (e.g. splits, rot holes etc.) were noted to inform future surveys. No buildings are present within the Preliminary Order Limits that offer suitability to support roosting bats. A summary of suitable roosting, commuting and foraging opportunities for bats is provided in **Table 5C 3.9**.

Table 5C 3.9 Summary of habitats suitable for roosting, foraging and commuting bats throughout land within the Preliminary Order Limits

	Roosting bats	Commuting/foraging bats
Western corridor and associated spurlines	Agricultural land dominates the habitats within the Preliminary Order Limits, in particular arable fields which are found along Frodsham, Helsby and Ince Marshes LWS and support very few areas of woodland or mature trees along field boundaries which would support roosting opportunities for bats. Within East Clifton Tip and Frodsham Field Studies Centre LWSs the Preliminary Order Limits pass through semi-natural woodland with trees likely to be mature enough to support features suitable for roosting bats.	The Preliminary Order Limits largely pass through arable and pastoral land which is of limited suitability for commuting/foraging bats, and there are few hedgerows within Frodsham, Helsby and Ince Marshes LWS where fields are typically bounded by ditches. Canals and watercourses such as the tree-lined Weaver Navigation and hedgerow-bound Trent and Mersey Canal provide commuting and foraging opportunities and are well connected to the wider landscape.
Southern corridor	Few roosting opportunities are present within the largely agricultural landscape and these are mainly limited to mature trees occasionally present along field boundaries. Blocks of semi-natural woodland, often found along watercourses (such as within Weaver Valley/Newbridge Pool LWS) are occasional within the Preliminary Order Limits with trees likely to be mature enough to support features suitable for roosting bats.	A number of tree/woodland-lined watercourses provide suitable habitat for commuting/foraging bats, in particular the wooded valley of the River Weaver which is well connected to woodland and watercourses in the wider landscape. Along the rest of the route, the Preliminary Order Limits largely pass through arable and pastoral land which is of limited suitability,

	Roosting bats	Commuting/foraging bats
		however, fields are typically bounded by hedgerows which provide more favourable opportunities.
Eastern corridor and associated spurlines	The Preliminary Order Limits pass through a landscape dominated by agricultural land in which roosting opportunities are mostly limited to mature trees within field boundaries. Woodland is uncommon within the Preliminary Order Limits and limited to small pockets of semi-natural woodland with mature trees that are likely to support features suitable for roosting bats. There is one large block of plantation woodland, immediately south of the M6, which is considered unlikely to support roosting opportunities.	The Preliminary Order Limits largely pass through arable and pastoral land which is of limited suitability for commuting/foraging bats, however fields are typically bounded by hedgerows which are more favourable. A number of watercourses may provide some limited foraging and commuting habitat, however these are typically small and lack trees or woodland on the banks.
Northern corridor and associated spurlines	Few roosting opportunities are present within the largely agricultural landscape, with mature trees along field boundaries and woodland uncommon within the Preliminary Order Limits. However, within Moore Nature Reserve LWS the corridor passes through semi-natural woodland with trees likely to be mature enough to support features suitable for roosting bats.	The Preliminary Order Limits largely pass through arable and pastoral land which is of limited suitability for commuting/foraging bats, however fields are typically bounded by hedgerows which are more favourable. A number of tree-lined canals, such as the Manchester Ship Canal and Bridgewater Canal as well as watercourses such as Pendlebury Brook will also provide suitable habitat for commuting and foraging and are well connected to the wider landscape.
Central Hub	Habitats within the Preliminary Order Limits are predominantly modified grassland, arable fields and hardstanding and these provide negligible roosting opportunities for bats. Willow scrub is present surrounding several ponds, however trees are largely young to semi-mature are unlikely to support roosting features.	The hedgerows, ditches and small watercourse found within the Preliminary Order Limits provide a limited commuting/foraging resource in a largely agricultural landscape. However, they do provide connection to blocks of woodland found outside the Preliminary Order Limits.

Dormouse

3.2.5. The Project lies outside of the known range of this species and dormice are therefore considered to be absent from the Preliminary Order Limits.

Breeding birds (Schedule 1 species only)

3.2.6. The desk study presented in the PEIR informed the potential for Schedule 1 species within the Preliminary Order Limits. **Table 5C 3.10** summarises the potential for these species to be present within the Preliminary Order Limits as well as any incidental records gathered during the PEA.

Table 5C 3.10 Summary of habitats suitable for breeding birds throughout land within the Preliminary Order Limits

	Breeding bird habitat
Western corridor and associated spurlines	At least six Schedule 1 bird species have the potential to breed within the Preliminary Order Limits, comprising: quail, avocet, barn owl, hobby, kingfisher and Cetti's warbler. Additionally, garganey, black-necked grebe, little ringed plover, and marsh harrier and peregrine may also breed near the Preliminary Order Limits. Quail breed within arable and grassland habitats but are generally distributed across the eastern parts of England. Suitable habitat for quail is present within the Preliminary Order Limits. Suitable nesting habitat for barn owl, including cavities in trees and man-made nest boxes, is scattered throughout (or immediately adjacent to) the Preliminary Order Limits. Suitable foraging habitat such as rough grassland is also present throughout the western area. Suitable nesting habitat for hobby is present, including use other birds' nests (e.g. crows), single hedgerow trees, copses and small woods; as well as nests on pylons such as where they cross the Preliminary Order Limits to the west of Frodsham. Suitable nesting habitat for Kingfisher, including holes in riverbanks and ditches, is present within the Preliminary Order Limits. Suitable breeding habitat for Cetti's warbler, including bramble scrub, reedbed and tall ruderal habitats, is present throughout the Preliminary Order Limits. There are several locations where these habitats are present, particularly around the Frodsham Field Studies Centre LWS, Ince Marshes and Frodsham Marsh. Suitable breeding habitat for garganey and black-necked grebe, including ponds fringed with reeds and rushes, is present also adjacent to the Preliminary Order Limits at the Frodsham Sludge Lagoons. Suitable breeding habitat for little-ringed plover, primarily shingle banks on rivers or lakes but also reservoirs, quarries and even industrial land, (where similar type habitats are present), occurs within the Preliminary Order Limits at the western corridor terminus. Pylons within the Preliminary Order Limits also provide suitable breeding habitat for peregrine.
Southern corridor	At least five Schedule 1 bird species have the potential to breed within the Preliminary Order Limits, comprising: quail, barn owl, hobby, kingfisher and Cetti's warbler. Additionally peregrine may also breed near the Preliminary Order Limits.

	Breeding bird habitat
	Quail breed within arable and grassland habitats but are generally distributed across the eastern parts of England. Suitable habitat for quail is present within the Preliminary Order Limits. Suitable nesting habitat for barn owl, including cavities in trees and man-made nest boxes, is scattered throughout (or immediately adjacent to) the Preliminary Order Limits. Suitable foraging habitat such as rough grassland is also present throughout the southern area. Suitable nesting habitat for hobby is present, including use other birds' nests (e.g. crows), single hedgerow trees, copses and small woods; as well as nests on pylons such as where they cross the Preliminary Order Limits near Weaverham. Suitable nesting habitat for Kingfisher, including holes in riverbanks and ditches, is present within the Preliminary Order Limits. Suitable breeding habitat for Cetti's warbler, including the bramble scrub, reedbed and tall ruderal habitats that fringe the waterways and railways within the area, is present throughout the Preliminary Order Limits. Pylons and man-made structures within and adjacent to the Preliminary Order Limits (e.g. Dutton Viaduct) also provide suitable breeding habitat for peregrine.
Eastern corridor and associated spurlines	At least five Schedule 1 bird species have the potential to breed within the Preliminary Order Limits, comprising: quail, barn owl, hobby, kingfisher and Cetti's warbler. Additionally, peregrine may also breed near the Preliminary Order Limits. Quail breed within arable and grassland habitats but are generally distributed across the eastern parts of England. Suitable habitat for quail is present within the Preliminary Order Limits. Suitable nesting habitat for barn owl, including cavities in trees and man-made nest boxes, is scattered throughout (or immediately adjacent to) the Preliminary Order Limits. Suitable foraging habitat such as rough grassland is also present throughout the eastern area. Suitable nesting habitat for hobby is present, including use other birds' nests (e.g. crows), single hedgerow trees, copses and small woods; as well as nests on pylons such as those near Dunham Woodhouses. Suitable nesting habitat for Kingfisher, including holes in riverbanks and ditches, is present within the Preliminary Order Limits. Suitable breeding habitat for Cetti's warbler, including the bramble scrub, reedbed and tall ruderal habitats that fringe the waterways and railways within the area, is present throughout the Preliminary Order Limits.

	Breeding bird habitat
	Pylons within the Preliminary Order Limits also provide suitable breeding habitat for peregrine.
Northern corridor and associated spurlines	At least five Schedule 1 bird species have the potential to breed within the Preliminary Order Limits, comprising: quail, barn owl, hobby, kingfisher and Cetti's warbler. Additionally, garganey, black-necked grebe, little ringed plover and peregrine may also breed near the Preliminary Order Limits. Quail breed within arable and grassland habitats but are generally distributed across the eastern parts of England. Suitable habitat for quail is present within the Preliminary Order Limits. Suitable nesting habitat for barn owl, including cavities in trees and man-made nest boxes, is scattered throughout (or immediately adjacent to) the Preliminary Order Limits. Suitable foraging habitat such as rough grassland is also present throughout the northern area. Suitable nesting habitat for hobby is present, including use other birds' nests (e.g. crows), single hedgerow trees, copses and small woods; as well as pylons such as where they cross the Preliminary Order Limits near Fiddler's Ferry Power Station. Suitable nesting habitat for Kingfisher, including holes in riverbanks and ditches, is present within the Preliminary Order Limits. Suitable breeding habitat for Cetti's warbler, including bramble scrub, reedbed and tall ruderal habitats is present throughout the Preliminary Order Limits, particularly around Moore Nature Reserve LWS. Suitable breeding habitat for garganey and black-necked grebe, including ponds fringed with reeds and rushes, is present in Moore Nature Reserve and also adjacent to the Higher Walton to Novelis Latchford spur terminus at Woolston Eyes. Suitable breeding habitat for little-ringed plover, primarily shingle banks on rivers or lakes but also reservoirs, quarries and even industrial land, (where similar type habitats are present), occurs adjacent to the Preliminary Order Limits at the northern spur terminus and also within the workings around Mill Lane. Pylons within the Preliminary Order Limits also provide suitable breeding habitat for peregrine.

	Breeding bird habitat
Central Hub	At least three Schedule 1 bird species have the potential to breed within the Preliminary Order Limits, comprising: quail, barn owl and hobby. Quail breed within arable and grassland habitats but are generally distributed across the eastern parts of England. Suitable habitat for quail is present within the Preliminary Order Limits. Suitable nesting habitat for barn owl, including cavities in trees and man-made nest boxes, is scattered throughout (or immediately adjacent to) the Preliminary Order Limits. Suitable foraging habitat such as rough grassland is also present. Suitable nesting habitat for hobby is present, including use other birds' nests (e.g. crows), single hedgerow trees, copses and small woods.

Wintering birds

3.2.7. Suitable habitat for wintering birds is present within the Preliminary Order Limits, however, largely restricted to habitats within the northern corridor and associated spurlines and western corridor, and these are summarised in **Table 5C 3.11**.

Table 5C 3.11 Summary of habitats suitable for wintering birds throughout land within the Preliminary Order Limits

	Wintering bird habitat
Northern corridor and associated spurlines	Riverine and canal habitat are suitable to support significant numbers of wintering waterbirds, particularly on the River Mersey and at Moore Nature Reserve LWS. Additionally, Woolston Eyes adjacent to the Higher Walton to Novelis Latchford spur terminus is suitable for supporting waterbirds during the winter period. The habitats within the Preliminary Order Limits are suitable to support a standard farmland bird assemblage, typical of the area.
Eastern corridor and associated spurlines	The habitats within the Preliminary Order Limits are suitable to support a standard farmland bird assemblage, typical of the area.

	Wintering bird habitat
Southern corridor	The habitats within the Preliminary Order Limits are suitable to support a standard farmland bird assemblage, typical of the area.
Western corridor and associated spurlines	The farmland habitats are suitable to support wintering birds such as wildfowl and waders, due to the proximity to designated sites such as the Mersey Estuary SPA, , particularly on land adjacent to the Preliminary Order Limits at Frodsham Marshes, Ince Marshes and Lordship Lane Fields. It is considered that some of the farmland adjacent to the Preliminary Order Limits are functionally linked with the Mersey Estuary Special Protection Area. Frodsham Marsh, adjacent to the Preliminary Order Limits, also supports a roost of marsh harriers. Riverine and canal habitat suitable to support waterbirds, particularly on the River Weaver. The habitats within the Preliminary Order Limits are likely to hold a standard farmland bird assemblage, typical of the area.
Central Hub	The habitats within the Preliminary Order Limits are likely to hold a standard farmland bird assemblage, typical of the area.

Reptiles

3.2.8. No incidental records of reptiles or evidence of their presence was noted in the survey area during the PEA. The majority of habitats present within the Preliminary Order Limits are intensively managed e.g. arable or modified grassland and therefore lack the vegetation structure and diversity to provide suitable habitat for reptile basking, foraging, hibernating, or egg-laying. However, occasional areas are present with a greater level of structural diversity which provide suitable habitat for reptile species such as common lizard, grass snake, adder, and slow worm. Hedgerows and ditches are frequent throughout the Preliminary Order Limits and provide connectivity to the wider landscape. A summary of habitat suitability for reptiles within the Preliminary Order Limits is provided in **Table 5C 3.12**.

Table 5C 3.12 Summary of habitats suitable for reptiles throughout land within the Order Limits

	Reptile habitat
Western corridor and associated spurlines	Habitats within the Preliminary Order Limits, dominated by grazed pasture and arable fields are of low suitability for reptiles. Abundant ditches within Frodsham, Helsby and Ince Marshes LWS are of sub-optimal suitability for species such as grass snake and are often isolated by the intensively managed landscapes surrounding them. Areas of unmanaged grassland, field margins and hedgerows are infrequent though where present provide suitability for reptiles basking, foraging, commuting, hibernating and egg-laying.
Southern corridor	Habitats within the Preliminary Order Limits, dominated by grazed pasture and arable fields are of low suitability for reptiles. Areas of unmanaged grassland are occasional, and in some cases found in association with small watercourses and waterbodies and these habitats are likely to provide suitability for reptile basking and foraging. Hedgerows and ditches are frequent and are suitable for commuting reptiles.
Eastern corridor and associated spurlines	Habitats within the Preliminary Order Limits, dominated by grazed pasture and arable fields are of low suitability for reptiles. Field margins of tussocky grassland, hedgerows and ditches provide suitability for reptile basking, foraging, commuting, hibernating and egg-laying. Areas of tussocky grassland surrounding small watercourses may also be suitable for species such as grass snake.
Northern corridor and associated spurlines	Suitable reptile habitat is limited in the agriculturally dominated landscape of the Preliminary Order Limits, however allotments, arable field margins, hedgerows and ditches provide suitability for reptile basking, foraging, commuting, hibernating and egg-laying. Habitats in Moore Nature Reserve may be suitable for species such as grass snake, which are often associated with woodland and water-based habitats.
Central Hub	Habitats within the Preliminary Order Limits, dominated by grazed pasture and arable fields are of low suitability for reptiles, however hedgerows, ponds and small watercourses may provide suitable habitat for reptile basking, foraging, hibernating, or egg-laying.

Great crested newts

3.2.9. The PEA recorded suitable terrestrial and aquatic habitats within the Preliminary Order Limits for GCN. A summary of habitat suitability for GCN is provided in **Table 5C 3.13** The desk study identified waterbodies within 250m of the Preliminary Order Limits and these are included in the PIER.

Table 5C 3.13 Summary of terrestrial and aquatic habitats suitable for great crested newts throughout land within the Preliminary Order Limits

	Terrestrial Habitat	Aquatic Habitat
Western corridor and associated spurlines	The dominant habitat within the Preliminary Order Limits is arable land, and fields are typically bounded by ditches which will provide dispersal opportunities for GCN. Closely grazed modified grassland also provides few foraging opportunities, however occasional fields, field margins and riverbanks supporting longer swards of neutral grassland are of better suitability. Large rivers and canals, including the River Weaver and the Weaver Navigation will provide a barrier against GCN movement through the Preliminary Order Limits.	Ponds are present within the Preliminary Order Limits, several are found within woodland which will provide suitable terrestrial habitat for GCN, however beyond this they are largely isolated by industrial development and major roads which will act as a barrier against GCN movement. Several ponds also lie within agricultural land, surrounded by a thin boundary of tussocky grassland and trees, which will provide limited opportunities for foraging and shelter.
Southern corridor	Extensive areas of semi-natural woodland are crossed by the Preliminary Order Limits, particularly woodland within Weaver Valley/Newbridge Pool LWS and woodland surrounding Puddinglake Brook. These will provide optimal terrestrial habitat for some GCN behaviours. Areas of tussocky, neutral grassland are occasional throughout the Preliminary Order	Ponds are present within the Preliminary Order Limits. Several are located within parcels of woodland within agricultural fields. Whilst the woodland will provide suitable terrestrial habitat for GCN, the surrounding agricultural land is of lower suitability for GCN. Several ponds are also surrounded by small areas of scrub or rough grassland, providing limited opportunities for foraging and shelter.

	Terrestrial Habitat	Aquatic Habitat
	Limits and will provide valuable foraging habitat. Hedgerows and ditches are common throughout the landscape and will provide dispersal routes and foraging opportunities. Busy dual-carriageways and large rivers, including the River Weaver, will provide a barrier against GCN movement through the Preliminary Order Limits.	
Eastern corridor and associated spurlines	There is limited favourable woodland within the Preliminary Order Limits. A large block of plantation woodland adjacent to the M6 will provide few opportunities for forage, shelter or refuge. Arable fields and short grazed pasture are the dominant habitat in the Preliminary Order Limits and offer low suitability for GCN. Hedgerows and ditches are common throughout the landscape and will provide dispersal routes and foraging opportunities. Major roads including the M56 and M6 will provide a barrier against GCN movement through the Preliminary Order Limits.	Ponds are present within the Preliminary Order Limits, found within agricultural fields and small blocks of woodland. The ponds are typically surrounded by trees, scrub or rough grassland and these habitats providing some foraging and shelter, however they are often located within large arable landscapes which are of lower suitability for GCN .
Northern corridor and associated spurlines (including St Helens LPA)	Semi-natural woodland, which is concentrated within Moore Nature Reserve LWS, provides optimal terrestrial habitat for GCN, supporting deadwood for sheltering/refuging GCN and forage in the shrub and ground layer. Hedgerows and ditches are common throughout the landscape and will provide dispersal routes and further foraging opportunities. Major roads including the M62 and	There are several ponds within the Preliminary Order Limits of Moore Nature Reserve LWS and they are found within semi-natural woodland interspersed with reedbeds, providing optimal terrestrial habitat for all behaviours. Ponds are also present within agricultural fields and these are typically surrounded by scattered trees or ruderal vegetation which will provide shelter and foraging habitat for GCN.

	Terrestrial Habitat	Aquatic Habitat
	large rivers and canals including the River Mersey and Manchester Ship canal will provide a barrier against GCN movement through the Preliminary Order Limits.	
Central Hub	The Preliminary Order Limits are dominated by shortly mown/grazed modified grassland, arable fields and hardstanding which are of lower suitability for GCN. Abundant hedgerows and occasional ditches provide dispersal opportunities throughout the agricultural landscape. No significant barriers against GCN movement are present within the Preliminary Order Limits.	Ponds are present within the Preliminary Order Limits, found at the boundaries of agricultural fields and surrounded by small areas of scrub. Whilst the scrub will provide some foraging opportunities and shelter, the wider agricultural landscape is of lower suitability for GCN. All ponds are well connected by hedgerows, although field margins are often absent.

Terrestrial invertebrates

3.2.10. No incidental records of terrestrial invertebrates were noted during the PEA. The majority of the site, comprising intensively managed arable fields and modified grassland, does not contain the high floristic diversity or habitat niches suitable for supporting a wide range of terrestrial invertebrates. Areas suitable for supporting these species are occasional throughout the Preliminary Order Limits, mainly associated with less intensively managed grasslands, waterbodies and open mosaic habitat on previously developed land (OMHPDL). A summary of habitat suitability for terrestrial invertebrates throughout the Preliminary Order Limits is provided in **Table 5C 3.14**.

Table 5C 3.14 Summary of habitats suitable for terrestrial invertebrates throughout land within the Preliminary Order Limits

	Terrestrial invertebrate habitat
Western corridor and associated spurlines	The agricultural fields which dominate the Preliminary Order Limits provide low suitability for invertebrates. Areas of neutral grassland with good floral diversity are occasionally present throughout the Preliminary Order Limits in the form of less frequently managed fields. Extensive ditch networks which support aquatic plants provide suitable habitat for a range of invertebrate species. An area of OMHPDL found within East Clifton Tip LWS exhibits a mosaic of annuals, bryophytes and areas of exposed bare ground comprising spoil and loose aggregate which provides shelter, basking and forage for range of invertebrate species.
Southern corridor	The agricultural fields which dominate the Preliminary Order Limits provide low suitability for invertebrates. Areas of neutral grassland with good floral diversity are occasionally present throughout the Preliminary Order Limits in the form of less frequently managed fields, woodland rides and field margins. There are also small areas of tussocky neutral grassland found in association with ponds and these habitats are favourable for a range of invertebrate species.
Eastern corridor and associated spurlines	Habitats with suitability to support terrestrial invertebrates are limited within the Preliminary Order Limits and expanses of arable land and modified grassland which dominate will be largely of low suitability for notable species. Areas of less frequently managed grassland are uncommon throughout the Preliminary Order Limits. At the end of the corridor an area of OMHPDL is present upon a former industrial site. Habitats lies upon a gravel substrate which support a mosaic of scrub and ephemeral vegetation providing shelter, basking and forage for a range of invertebrate species.
Northern corridor and associated spurlines	Habitats with suitability to support terrestrial invertebrates are limited within the Preliminary Order Limits and expanses of arable land and modified grassland which dominate are largely of low suitability for notable species. In one location, to the south of the M62, arable margins have been sown with a species-rich mixture and these areas provide better suitability for invertebrates within the agricultural landscape. Moore Nature Reserve LWS supports acid and neutral grassland which is likely to be managed for biodiversity and these habitats will be favourable for invertebrates, providing a range of flowering plants and habitat niches. OMHPDL is present to the north of the Manchester Ship Canal and vegetation is short and patchy and lies upon a gravel substrate, providing shelter, basking and forage for range of invertebrates.

	Terrestrial invertebrate habitat
Central Hub	Habitats within the Preliminary Order Limits are dominated by managed modified grassland with low floral diversity and arable fields which provide low suitability for invertebrates. Occasional unmanaged field margins will provide greater value and species richness, particularly when in association with hedgerows and ditches. Occasional ponds which are surrounded by scrub will provide habitat for a range of invertebrate species.

SPI and other conservation notable vertebrate species

3.2.11. Habitat suitable for SPI and other conservation notable vertebrate species, including hedgehog, polecat, brown hare and common toad is abundant within the Preliminary Order Limits and these species are likely to inhabit a range of habitats. Woodland, which is common throughout the Preliminary Order Limits and particularly abundant within LWSs such as Moore Nature Reserve, Weaver Valley/Newbridge Pool and East Clifton Tip provides suitable habitat for hedgehog. Expanses of arable and pastoral fields are suitable for brown hare and these habitats are dominant throughout the Preliminary Order Limits. Common toad are likely to be found in the ponds, in particular ponds which are associated with woodlands, and these are occasional throughout the Preliminary Order Limits.

Fish

3.2.12. Watercourses are frequent throughout the Preliminary Order Limits and include large rivers such as the River Mersey (northern corridor), River Weaver (western and southern corridor), River Dane (southern corridor) and River Bollin (eastern corridor). There are also numerous small streams. These habitats are suitable for various fish species.

Invasive non-native species

3.2.13. Invasive non-native species, such as Himalayan balsam and Japanese knotweed, were found throughout the Preliminary Order Limits during the PEA. Himalayan balsam is particularly common along watercourses and ditches and has been recorded on all corridors. Stands of Japanese knotweed were also found to be discretely abundant throughout the Preliminary Order Limits, with concentrations found around Moore Nature Reserve LWS and habitats associated with the Manchester Ship Canal and River Mersey. No invasive species were recorded within the Central Hub.

4. Summary

4.1. Habitats

4.1.1. A range of habitat types were recorded within the Preliminary Order Limits and these are generally common and widespread within the locality. The western corridor and associated spurlines pass largely through arable fields, modified grassland and former industrial sites. The route crosses large watercourses and numerous ditches. Potential HPI identified include lowland mixed deciduous woodland, wet woodland, coastal floodplain grazing marsh, reedbeds, OMHPDL and hedgerows. The southern corridor and associated spurlines pass largely through arable fields, modified grassland as well as scattered areas of woodland. The route crosses large and small watercourses. Potential HPI identified include lowland mixed deciduous woodland, wet woodland, reedbeds and hedgerows. The eastern corridor and associated spurlines pass largely through arable fields and modified grassland, terminating in a former industrial area. The route crosses major roads and several small watercourses. Potential HPI identified include lowland mixed deciduous woodland, OMHPDL and hedgerows. The northern corridor and associated spurlines pass largely through arable fields, modified grassland and woodland terminating in the urban area of St Helens and crossing a number of large watercourses and major roads. Potential HPI identified include lowland mixed deciduous woodland, OMHPDL, reedbeds, lowland dry acid grassland, arable field margins, hedgerows, intertidal mudflats and coastal saltmarsh. The Central Hub comprises largely arable fields, modified grassland.

4.1.2. Presence of the legally controlled invasive non-native species including Himalayan balsam, giant hogweed, cotoneaster sp. and Japanese knotweed were noted within the Preliminary Order Limits.

4.1.3. The requirement for further detailed botanical survey of potential higher quality habitats will be reviewed and reported separately.

4.2. Species

4.2.1. Potential to support badger, otter, water vole, bats, dormice, breeding birds (including Schedule 1 species), reptiles, great crested newt, terrestrial invertebrates and SPI and other conservation notable vertebrate species was found through the Project. Potential habitat to support wintering birds was restricted to habitats along the northern and western corridors.

.

Annex 5C 1 Legislation

Legislation relating to European Protected Species (e.g., bats, otter, great crested newt)

European Protected Species and their resting places (e.g., bat roosts) are protected under the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000, and the Conservation of Habitats and Species Regulations 2017.

The Conservation of Habitats and Species Regulations 2017 transpose the European Union's 'Habitats Directive' (Council Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) into UK law. The Regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' (EPS), and the adaptation of planning and other controls for the protection of European Sites. EPS are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally kill, injure, or take certain animals listed in Schedule 5;
- Intentionally or recklessly damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of wild animals listed in Schedule 5.

Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:

- Deliberately capture, injure, or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely;
- to impair their ability;
- to survive, to breed or reproduce, or to rear or nurture their young;
- in the case of animals of a hibernating or migratory species, to hibernate or migrate;
- to significantly affect the local distribution or abundance of the species to which they belong;
- Deliberately take or destroy the eggs of such an animal; or
- Damage or destroy a breeding site or resting place of such an animal.

In addition, under this legislation there are offences relating to possession, control sale and exchange of an EPS.

Great crested newt, otter and several species of bat are listed as a Species of Principle Importance (SoPI) under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Legislation for white-clawed crayfish

White-clawed crayfish are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this act it is an offence to:

- Intentionally take white-clawed crayfish from the wild; and
- Sell or attempt to sell, any part of a white-clawed crayfish, alive or dead, or advertise that one buys or sells, or intends to buy or sell any part of a white-clawed crayfish.

The white-clawed crayfish is listed under Annex II and V of the EC Habitats Directive. The Conservation of Habitats and Species Regulations 2010 implements the European Union's 'Habitats Directive' (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Fauna and Flora) in Great Britain. Annex II requires that Special Areas of Conservation (SAC) are established specifically to conserve this and other listed species. In a SAC designated for white-clawed crayfish a precautionary principle must be applied when considering the potential impacts of any operations that may affect white-clawed crayfish and their habitat.

White clawed crayfish are listed as a SoPI under Section 41 of NERC Act 2006.

Legislation for amphibians (other than great crested newt)

Under the Wildlife and Countryside Act 1981 (as amended) the four widespread amphibian species, smooth newt (Triturus vulgaris), palmate newt (Triturus helveticus), common toad (Bufo bufo) and common frog (Rana temporaria) receive limited protection through section 9(5) only which makes selling, offering for sale, possessing, or transporting for the purpose of sale (live or dead animal, part, or derivative) an offence.

Common toad is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to reptiles

All native reptile species have some degree of protection in the UK, through section 9(1) and (5) (specified in Schedule 5) of the Wildlife and Countryside Act 1981 (as amended). There are two different levels of protection afforded to reptiles through this legislation according to species and this is described in more detail below.

Full Protection

Sand lizard (Lacerta agilis) and smooth snake (Coronella austriaca) are afforded protection under The Conservation of Habitats and Species Regulations 2010 (are species of European importance) and are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act (2000). The Conservation of Habitats and Species Regulations 2010 implements the European Union's 'Habitats Directive' (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Fauna and Flora) in Great Britain. The relevant sections of this legislation make it an offence to:

- Intentionally kill, injure, or capture or take a reptile;

- Possess or control (live or dead animal, part, or derivative);
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a reptile;
- Disturb whilst the reptile is occupying such a structure or place; and
- Sell, offer for sale, possess, or transport for the purpose of sale (live or dead animal, part, or derivative).

Sand lizard and smooth snake are listed as a SoPI under Section 41 of the NERC Act 2006.

Protection against killing, injuring and trade

This level of protection under section 9 (parts 1 and 5) applies to the four widespread species of reptile, namely the common lizard (Zootoca vivipara), slow-worm (Anguis fragilis), grass snake (Natrix natrix) and adder (Viper berus). Only part of sub-section 9(1) applies, which make it an offence to:

- Intentionally kill or injure, and
- Sell, offer for sale, possess, or transport for the purpose of sale (live or dead animal, part, or derivative).

Grass snake, slow-worm and adder are all listed as SoPI under Section 41 of the NERC Act 2006.

Legislation relating to breeding birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) and it is an offence, with certain exceptions, to:

- Intentionally kill, injure, or take any wild bird;
- Intentionally take, damage, or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird; and
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird.

Schedule 1 of the Wildlife and Countryside Act 1981 provides further protection for selected species (including peregrine falcon (Falco peregrinus), barn owl (Tyto alba), little ringed plover (Charadrius dubius) and black redstart (Phoenicurus ochruros) during the breeding season. If any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird. That person shall be guilty of an offence.

A number of bird species are listed as SoPI under Section 41 of the NERC Act 2006.

Conservation status - Birds of Conservation Concern (Eaton et al., 2021)

The UK's leading The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly in the UK, updating the last review in 2015. The status of birds within the UK have been regularly monitored through a series of surveys, including the national Breeding Bird Survey, Common Bird Census, sea bird monitoring programs and wetland monitoring programs. The result of this review and continued monitoring is The Population Status of Birds in the UK, Birds of Conservation Concern 5: 2021.

Birds are assessed against criteria to place each species on one of three alert lists, red, amber, or green. Red list species are considered to be of high conservation concern, being either globally threatened, having historical UK population declines, having a rapid population decline or breeding range contraction of 50% or more in the last 25 years.

Amber list species are considered to be of medium conservation concern as they meet one or more of the following criteria (but none of the red list criteria):Red listed for historical decline in a previous review but with substantial recent recovery (more than doubled in the last 25 years), a UK breeding range contraction of between 25% and 49%, a reduction of breeding or non-breeding population of 25-49% in the last 25 years, a 5-year mean of 1-300 breeding pairs in the UK, an unfavourable European conservation status, at least 50% of the UK breeding population found in 10 or fewer sites, or where the breeding population in the UK represents 20% or more of the European breeding populations.

Green list species are considered to be of low conservation concern. They include all regularly occurring species that do not qualify under any of the red or amber criteria are green listed. The green list also includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

Legislation relating to badger

Badgers are protected under the Protection of Badgers Act 1992 (as amended) which makes it an offence to:

- wilfully kill, injure, take, possess, or cruelly ill-treat a badger, or to attempt to do so;
- intentionally or recklessly damage, destroy or obstruct access to a badger sett; and
- disturb a badger when it is occupying a sett.

These provisions have implications for construction or preparation works undertaken in the vicinity of an active sett and may be confounded by distance from the sett entrance. Any works resulting in ground penetration, vibration or noise near an identified badger sett entrance/s have the potential to disturb badgers and advice should be sought from a suitably experienced ecologist under such circumstances. If disturbance to an active sett is probable, then a licence may need to be obtained from Natural England before any works commence.

Legislation relating to water vole

The water vole is fully protected under Section 9 of the Wildlife & Countryside Act 1981 (as amended) through its inclusion in Schedule 5. The legal protection makes it an offence to:

- Intentionally kill, injure, or capture or take a water vole;
- Possess or control (live or dead animal, part, or derivative);
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a water vole;
- Deliberately (intentionally) or recklessly disturb a water vole whilst occupying such as structure or place, and
- Sell, offer for sale, possess, or transport for the purpose of sale (live or dead animal, part, or derivative).

Water vole is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to invasive plant species

Several non-native invasive plant species including (but not limited to) Himalayan balsam (Impatiens glandulifera), giant hogweed (Heracleum mantegazzianum), Japanese rose (Rosa rugosa), variegated yellow archangel (Lamiastrum galeobdolon), rhododendron (Rhododendron ponticum) and Japanese knotweed (Fallopia japonica) are listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence to '…plant or otherwise cause the species to grow in the wild'. This includes spreading or transferring contaminated soil from one area to another.

Estate Managers and landowners have a duty to pro-actively treat knotweed outbreaks. Under the Natural Environment and Rural Communities Act 2006 (NERC), subsection 14ZA (1), makes it is an offence to sell, offer or expose for sale, or to have in one's possession or transport for the purpose of sale, any Schedule 9 animal or plant or anything from which such an animal or plant can be propagated, including rhizomes of Japanese knotweed. Under subsection 14ZA (2) it is also an offence to publish or cause to be published any advertisement for the purchase or sale of these animals and plants.

The Environmental Protection Act 1990 (EPA 1990) contains a number of legal provisions concerning controlled waste. Any Japanese knotweed contaminated soil or plant material that is intended for discard is likely to be classified as controlled waste.

The Environmental Protection (Duty of Care) regulations 1991 also imposes a 'duty of care' on persons concerned with controlled waste, which includes any materials incorporating Japanese knotweed including soil, grass cuttings, general wastes and ash arising from the burning of knotweed. The duty applies to any person, who produces, imports, carries, keeps, treats, or disposes of controlled waste. Failure to appropriately dispose of any material containing Japanese knotweed may lead to prosecution under Section 33 and 34 of the EPA 1990 and Section 14 (2) of the Wildlife & Countryside Act 1981 (as amended).

If knotweed stands are to be treated with herbicides, The Control of Pesticides Regulations (1986) applies. These regulations require any person who uses a pesticide to take all reasonable precautions to protect the health of human beings, creatures, and plants, safeguard the environment and in particular avoid the pollution of water. If pesticides are to be used in or near to a watercourse, the Environment Agency should be contacted, and approval must be sought (application to use herbicides in or near water).

Waste leaving the site must be handled responsibly and in accordance with the law at all stages between its production and final recovery or disposal. Waste must be transferred to an authorised person, who is either a registered waste carrier or exempted from registration by the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

Additional legislation regarding the transport of Japanese knotweed contaminated materials is covered by the Hazardous Waste Regulations 2005 (HWR, 2005). This contains provisions about the handling and movement of hazardous waste. Consignment notes must be completed when any hazardous waste is transferred, which includes details about the hazardous waste properties and any handling requirements. Untreated Japanese knotweed is not classed as hazardous waste, but material containing knotweed which has been treated with certain herbicides, may be classified as hazardous waste.

If any waste soil or knotweed is sent for landfill either before or after treatment, it must go to a landfill that is authorised to receive it.

The Hedgerows Regulations 1997

The Hedgerows Regulations 1997 were introduced to protect hedgerows of importance from destruction. However, the legislation does not apply to any hedgerow (even if it is within the list above) which is within or marking the boundary of the curtilage of a dwelling house.

For the Regulations to be applicable, the hedgerow must be at least 20 metres in length or, if less than 20 metres, it must meet another hedgerow at each end. A hedgerow is deemed to be important if it is more than thirty years old and meets at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

If a hedgerow which qualifies under the Regulations is to be removed, the landowner must contact the Local Planning Authority (LPA) in writing by submitting a hedgerow removal notice. The LPA then has a period of 42 days to decide whether or not the hedgerow meets the importance criteria of the regulations.

Annex 5C 2 Policy

Policy	Description
UK Post 2010 Biodiversity Framework	The 2024 UK Biodiversity Framework replaces the 'UK Post-2010 Biodiversity Framework', published in July 2012, which itself succeeded the UK BAP and 'Conserving Biodiversity – the UK Approach'... In the UK, environmental policy is a devolved function, and whilst specific policies and practices may vary, the countries share their core ambition of nature recovery and meeting the UK's international commitments. Each of the four countries of the UK have, and continue to develop, domestic policies and strategies to protect and restore nature, to manage natural resources sustainably and to respond to climate change and other environmental challenges. Additionally, the UK Marine Strategy (UKMS) co-ordinates actions to achieve good environmental status of our seas. Collectively, these will all contribute to delivering international commitments. However, the countries of the UK also recognise the value of sharing knowledge to promote their shared ambition, and to work together on activities that benefit from co-operation at a UK level. This is typically where common approaches or principles are required and/or where working at the UK-scale is more efficient, for example cross-border issues, species' surveillance and biodiversity reporting. It is also important to note that whilst the devolved governments have responsibility for implementing any international obligations, they are negotiated and entered into on a UK-wide basis and there are obligations to co-operate, communicate and report at the UK-level. The UK Biodiversity Framework (UKBF) facilitates the collation and aggregation of information on activities and outcomes across all four countries. It also provides a means for the four countries to communicate what they are doing individually and collectively to meet the UK's international biodiversity commitments. The UKBF focuses on activities that provide opportunities for meeting the UK's commitments more efficiently at a UK scale (for example on monitoring, reporting and international representation), on activities that add value to delivery in all countries of the UK (for example, data and knowledge exchange), or on activities that contribute to informing UK positions.

Policy	Description
UK Biodiversity Action Plan	The UK Biodiversity Action Plan (UK BAP) was published in 1994 and was the UK Government's response to the Convention on Biological Diversity (CBD), which the UK signed up to in 1992 in Rio de Janeiro. The CBD called for the development and enforcement of national strategies and associated action plans to identify, conserve and protect existing biological diversity, and to enhance it wherever possible. The UK BAP has since been superseded by devolved country conservation policy responses. UK BAP priority species and habitats were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP).
National Planning Policy Framework (NPPF)[23]	Section 15: Focuses on the natural environment. It requires planning policies and decisions to contribute to and enhance the natural and local environment by protecting and enhancing sites of biodiversity proportionately to statutory status or identified quality; recognising wider benefits from natural capital and ecosystem services; and minimising impacts on and providing net gains for biodiversity (paragraph 180). Plans should identify, map and safeguard biodiversity interest and networks, including wildlife corridors, the hierarchy of designated sites, and areas identified by national and local, partnerships. They should also promote conservation, restoration and enhancement including HPI and SPI, as well as securing measurable net gain (paragraph 185). If significant harm to biodiversity will result from a development that cannot be avoided, mitigated, or compensated for, permission will be refused unless the benefits of development outweigh impacts, or exceptional reasons and compensation apply, and opportunities to improve biodiversity should be in their design, especially where this can secure measurable net gains or enhance public access (paragraph 186).

[23] Department for Levelling Up, Housing and Communities (2023). The National Planning Policy Framework (NPPF). (online) Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2 (Accessed 10 July 2024).

Policy	Description
	Potential, possible, listed or proposed sites, and those that are an identified compensatory measure, are to be protected as the equivalent designation (paragraph 187). Potential impacts on sites requiring appropriate assessment will be considered ahead of the presumption for sustainable development (paragraph 188).
Environmental Improvement Plan 2023	The 25 Year Environmental Plan sets out a vision for action to help the natural world regain and retain good health. The ten goals of this plan are as follows: • Goal 1: Thriving plants and wildlife • Goal 2: Clean air • Goal 3: Clean and plentiful water • Goal 4: Managing exposure to chemicals and pesticides • Goal 5: Maximise our resources, minimise our waste • Goal 6: Using resources from nature sustainably • Goal 7: Mitigating and adapting to climate change • Goal 8: Reduced risk of harm from environmental hazards • Goal 9: Enhancing biosecurity • Goal 10: Enhanced beauty, heritage, and engagement with the natural environment.
Cheshire East Local Plan Strategy 2010-2030 (2017)24	Policy SE3: seeks to protect and enhance areas of high biodiversity and geodiversity value. It requires all development to positively contribute to the conservation and enhancement of biodiversity and geodiversity and should not negatively affect these interests where any residual harm following mitigation/ compensation is provided to address adverse impacts of the Project, or where any harm following mitigation/ compensation, along with any other harm, is clearly outweighed by the benefits of the development.

[24] Cheshire East Council (2017). Cheshire East Local Plan (Online) Available at: https://www.cheshireeast.gov.uk/planning/spatial-planning/cheshire_east_local_plan/cheshire_east_local_plan.aspx (Accessed March 2024).

Policy	Description
	Policy SE5: Development proposals which will result in the loss of, or threat to, the continued health and life expectancy of trees, hedgerows or woodlands that provide a significant contribution to the amenity, biodiversity, landscape character or historic character of the surrounding area, will not normally be permitted, except where there are clear overriding reasons for allowing the development and there are no suitable alternatives. Where such impacts are unavoidable, development proposals must satisfactorily demonstrate a net environmental gain by appropriate mitigation, compensation, or offsetting. The council will seek to ensure: The sustainable management of trees, woodland and hedgerows including provision of new planting within the infrastructure of new development proposals. The planting and sustainable growth of large trees within new development as part of a structured landscape scheme in order to retain and improve tree canopy cover within the borough as a whole.
Cheshire East Local Plan Revised Publication Draft Site Allocations and Development Policies Document (2022)25	Policy ENV 1: In line with Local Plan Strategy policy SE3, development proposals should seek to improve the connectivity, resilience and the functioning of the ecological network throughout Cheshire East. Policy ENV2: In line with Local Plan Strategy policy SE3, development proposals must deliver an overall net gain for biodiversity and must be supported by a biodiversity metric calculation to ensure the delivery of a biodiversity measurable net gain. Policy ENV4: Development proposals must make sure that river corridors are protected, and opportunities should be taken to enhance them as important natural landscape features. Policy ENV6: Developments should avoid impacting ancient woodland; ancient or veteran trees; and hedgerows deemed to be 'important'. They should also seek to avoid trees, woodland and hedgerows. Where this is not possible, replacement of these habitats should be integrated into the development scheme.

[25] Cheshire East Council (2022). Site Allocations and Development Policies Document (Online) Available at: https://www.cheshireeast.gov.uk/planning/spatial-planning/cheshire_east_local_plan/site-allocations-and-policies/site_allocations_and_policies.aspx (Accessed March 2024).

Policy	Description
Macclesfield Borough Local Plan (2004)[26]	Policy NE11-14: The borough council will seek to conserve, enhance and interpret nature conservation interests. Development which would adversely affect nature conservation interests will not normally be permitted. These include SSSIs and sites of regional or local value. Policy NE17: In major developments in the countryside, the Borough Council will seek improvements for nature conservation, tree planting and landscaping and will negotiate appropriate legal agreements to secure the implementation of these improvements by the developer.
Cheshire West & Chester Council Local Plan (Part 1) Strategic Policies (2015)[27]	Policy ENV3: Supports the creation, enhancement, protection and management of a network of high quality multi-functional Green Infrastructure, by requiring development to incorporate new and/or enhanced green infrastructure of an appropriate type, standard and size or contributing to alternative provision elsewhere, and increased planting of trees and woodlands, particularly in urban areas and urban fringe. Policy ENV4: Sites will be protected from loss or damage taking account of hierarchy of designations, the irreplaceability of habitats, sites and/or features and contribution to the borough's ecological network of sites and features, and Impact on priority habitats and protected/priority species. Development should not result in any net loss of natural assets and should seek to provide net gains. Mitigation and compensation will be required to ensure there is no net loss of environmental value.
Cheshire West & Chester Local Plan (Part 2) Land	Policy DM44: In line with Local Plan (Part One) policy ENV 4, development will be supported where there is no net loss of natural assets and, wherever possible, it delivers net gains within the borough. Development likely to have an impact on protected sites (statutory and non-statutory), protected/priority species,

[26] Borough of Macclesfield (2004). Macclesfield Borough Local Plan (Online) Available at: https://www.cheshireeast.gov.uk/planning/spatial-planning/saved_and_other_policies/macclesfield_local_plan/macclesfield_local_plan.aspx (Accessed March 2024).

[27] Cheshire West and Chester Council (2015) Cheshire West and Chester Local Plan (Part One) Strategic Policies (Online) Available at: http://consult.cheshirewestandchester.gov.uk/portal/cwc_ldf/adopted_cwac_lp/lp_1_adopted?tab=files (Accessed March 2024).

Policy	Description
Allocations and Detailed Policies (2019)[28]	priority habitats or geological sites must be accompanied by an Ecological Assessment that complies with industry best practice and guidance. DM45: In line with Local Plan (Part One) policies ENV 3 and ENV 4, development will be supported where it conserves, manages and, wherever possible, enhances existing trees, woodlands, traditional orchards, and hedgerows. All significant healthy trees, woodlands, traditional orchards, and hedgerows should be integrated into the development scheme. Where possible, existing significant trees should be incorporated within public open space.
Halton Delivery and Allocations Local Plan (2022)[29]	Policy HE1: Sets out a hierarchy for consideration of development which may affect a designated asset, of avoidance, minimisation, mitigation and compensation. Development which may adversely affect the integrity of internationally important sites will only be permitted where there are no alternative solutions and there are imperative reasons of overriding public interest. The policy sets out when and how development which may cause significant harm will be permitted for Sites of Local Importance, Sites of National Importance, Priority habitats, Priority Species and Protected Species. Mitigation, replacement or compensatory measures may be required. The policy also considers non-designated sites and habitats, ecological networks, and high-quality agricultural land. Policy HE5: Sets out guidance in relation to the protection, management and mitigation measures in relation to woodland, trees and hedgerows, and landscaping
St Helens Borough Local Plan up to 2037 (2022)[30]	Policy LPC06: Seeks to protect St Helen's biodiversity assets and interests by following the following hierarchy of nature conservation sites when making planning decisions: International and European Sites; Sites of Special Scientific Interest; Local Wildlife Sites; Local Nature reserves; Local Geological Sites; Priority Habitat(s); and Impact on Legal

[28] Cheshire West and Chester Council (2019) Cheshire West and Chester Local Plan (Part Two) Land Allocations and Detailed Policies (Online). Available at: https://consult.cheshirewestandchester.gov.uk/portal/cwc_ldf/adopted_cwac_lp/parttwo_adopted (Accessed March 2024).

[29] Halton Borough Council (2022). Halton Delivery and Allocations Local Plan (Online). Available at: DALP Adopted.pdf (halton.gov.uk) (Accessed March 2024).

[30] St Helens Borough Council (2022). St Helens Borough Local Plan up to 2037 (Online) Available at: Microsoft Word - Local Plan Written Statement - FINAL adoption version 16.06.2022 (sthelens.gov.uk) (Accessed March 2024).

Policy	Description
	Protected and/or priority species. Where necessary to avoid harm, appropriate mitigation, replacement or other compensatory provision will be required. Policy LPC08: Seeks to ensure greater resilience of the natural environment and secure a net gain in Biodiversity by strengthening those elements of the Liverpool City Region (LCR) Ecological Network. Particular priority will be given to habitat management, enhancement, restoration and creation in the LCR Nature Improvement Area. Policy LPC10: Seeks to increase the extent of tree cover across the Borough and to protect and enhance the multi-purpose value of trees, woodlands, and hedgerows.
Bold Forest Park Area Action Plan (2017)[31]	Policy BFP1: In developing the Forest Park infrastructure and attractions, the Council will work with its partners to seek an economic focus balanced with environmental sustainability, in order to meet the needs of the community. Policy BFP ENV 2: Complimenting wildlife protection measures set out in Core Strategy Policy CQL3 St. Helens Council and its project partners will, within a woodland and farming framework, enhance biodiversity in Bold Forest Park by developing an ecological network, which reduces habitat fragmentation and increases the resilience of wildlife in Bold Forest Park.
Trafford Local Plan: Core Strategy (2012)[32]	Policy R2: Requires developers to demonstrate through a supporting statement how their proposal will protect and enhance the landscape character, biodiversity, geodiversity and conservation value of its natural urban and countryside assets and protect the natural environment throughout the construction process. Where the council considers it necessary developers will be required to provide an appropriate ecological assessment report.

[31] St Helens Borough Council (2017). Bold Forest Park Area Action Plan (Online) Available at: https://www.sthelens.gov.uk/media/2393/Bold-Forest-Park-AAP-2017/pdf/Bold_Forest_Park_AAP_2017.pdf?m=637800919756800000 (Accessed March 2024).

[32] Trafford Council (2012). Trafford Local Plan: Core Strategy. (Online) Available at: https://www.trafford.gov.uk/planning/strategic-planning/local-plan/core-strategy.aspx (Accessed February 2022).

Policy	Description
Warrington Local Plan 2021/22 – 2038/39 (2021)[33]	Policy DC4: The policy seeks to conserve, restore and enhance biodiversity as well as securing a measurable net gain across the Plan area. Sites will be protected and developments should seek to avoid, mitigate or compensate for any adverse impacts. Impacts on priority habitat and protected/notable species should also be avoided wherever possible.

[33] Warrington Borough Council (2022). Warrington Local Plan 2021/22 – 2038/39 Adopted December 2023. (Online) Available at: https://www.warrington.gov.uk/sites/default/files/2023-12/Warrington%20local%20plan%20-%202021-22%20-%202038-39%20-%20Adopted%20December%202023.pdf (Accessed March 2024).

Annex 5C 3 Species Scientific Names

The scientific names of species referred to in the report are provided in **Table 5C 3.1.** Note, this is not a comprehensive list of the species present within the Order Limits.

Table 5C 3.1 Species Scientific Names

Common name	Scientific name
MAMMALS	
A bat	Chiroptera
Badger	Meles meles
Brown hare	Lepus europaeus
Hedgehog	Erinaceus europaeus
Otter	Lutra lutra
Polecat	Mustela putorius
Water vole	Arvicola amphibius
AMPHIBIANS	
Great crested newt	Triturus cristatus
Common toad	Bufo bufo
REPTILES	
Adder	Vipera berus
Common Lizard	Zootoca vivipara
Grass snake	Natrix helvetica
Slow worm	Anguis fragilis
BIRDS	
Avocet	Recurvirostra avosetta
Barn owl	Tyto alba
Black-necked grebe	Podiceps nigricollis
Cetti's warbler	Cettia cetti
Garganey	Anas querquedula

Common name	Scientific name
Hobby	Falco subbuteo
Kingfisher	Alcedo atthis
Little ringed plover	Charadrius dubius
Marsh harrier	Circus aeruginosus
Peregrine	Falco peregrinus
Quail	Coturnix coturnix
PLANTS	
Alder	Alnus glutinosa
Annual meadow grass	Poa annua
Apple	Malus sp.
Ash	Fraxinus excelsior
Barren brome	Bromus sterilis
Bee orchid	Ophrys apifera
Beech	Fagus sylvatica
Bird cherry	Prunus padus
Bird's foot trefoil	Lotus corniculatus
Bittercress	Cardamine sp.
Bittersweet	Solanum dulcamara
Black medick	Medicago lupulina
Blackthorn	Prunus spinosa
Borage	Borago officinalis
Bracken	Pteridium aquilinum
Bramble	Rubus fruticosus agg.
Bristly oxtongue	Helminthotheca echioides
Broadleaved dock	Rumex obtusifolius
Brooklime	Veronica beccabunga

Common name	Scientific name
Broom	Cytisus scoparius
Buddleia	Buddleja davidii
Bulrush	Typha latifolia
Burdock	Arctium lappa
Bush vetch	Vicia sepium
Butterbur	Petasites hybridus
Canadian fleabane	Conyza canadensis
Cherry	Prunus avium
Cleavers	Galium aparine
Cock's foot	Dactylis glomerata
Colt’s-foot	Tussilago farfara
Comfrey	Symphytum officinale
Common chickweed	Stellaria media
Common field speedwell	Veronica persica
Common fleabane	Pulicaria dysenterica
Common fumitory	Fumaria officinalis
Common gorse	Ulex europaeus
Common hogweed	Heracleum sphondylium
Common knapweed	Centaurea nigra
Common lime	Tilia x vulgaris
Common mouse-ear	Cerastium fontanum
Common nettle	Urtica dioica
Common poppy	Papaver rhoeas
Common ragwort	Senecio jacobaea
Common reed	Phragmites australis
Common storksbill	Erodium cicutarium

Common name	Scientific name
Common vetch	Vicia sativa subsp. segetalis
Cotoneaster	Cotoneaster sp.
Cow parsley	Anthriscus sylvestris
Cowslip	Primula veris
Crab apple	Malus sylvestris
Crack willow	Salix fragilis
Creeping bent	Agrostis stolonifera
Creeping buttercup	Ranunculus repens
Creeping cinquefoil	Potentilla reptans
Creeping juniper	Juniperus horizontalis
Creeping thistle	Cirsium arvense
Crested dog's tail	Cynosurus cristatus
Cuckoo flower	Cardamine pratensis
Curled dock	Rumex crispus
Cut-leaved cranesbill	Geranium dissectum
Cypress	Cupressus sp.
Daisy	Bellis perennis
Dame's rocket	Hesperis matronalis
Dandelion	Taraxacum agg.
Dog rose	Rosa canina
Dog's mercury	Mercurialis perennis
Dogwood	Cornus sanguinea
Dove's-foot crane's-bill	Geranium molle
Duckweed	Lemna minor
Elder	Sambucus nigra
Elm	Ulmus procera

Common name	Scientific name
Enchanter's nightshade	Circaea lutetiana
European larch	Larix decidua
Evening primrose	Oenothera biennis
False oat grass	Arrhenatherum elatius
Field bindweed	Convolvulus arvensis
Field forget-me-not	Myosotis arvensis
Field horsetail	Equisetum arvense
Field maple	Acer campestre
Field mustard	Brassica rapa
Field pansy	Viola arvensis
Field wood-rush	Luzula campestris
Fool's watercress	Apium nodiflorum
Foxglove	Digitalis purpurea
Garden daffodil	Narcissus pseudonarcissus major
Garlic mustard	Alliaria petiolata
Germander speedwell	Veronica chamaedrys
Giant hogweed	Heracleum mantegazzianum
Glaucous sedge	Carex flacca
Goat willow	Salix caprea
Great willowherb	Epilobium hirsutm
Greater plantain	Plantago major
Greater stitchwort	Stellaria holostea
Grey willow	Salix cinerea
Ground elder	Aegopodium podagraria
Ground ivy	Glechoma hederacea
Groundsel	Senecio vulgaris

Common name	Scientific name
Guelder rose	Viburnum opulus
Hairy tare	Vicia hirsuta
Hard rush	Juncus erectus
Hart's tongue fern	Asplenium scolopendrium
Hawthorn	Crataegus monogyna
Hazel	Corylus avellana
Hebe	Hebe sp.
Hedge bedstraw	Galium mollugo
Hedge bindweed	Calystegia sepium
Hemlock water dropwort	Oenanthe crocata
Herb robert	Geranium robertianum
Himalayan balsam	Impatiens glandulifera
Hoary willowherb	Epilobium parviflorum
Holly	Ilex aquifolium
Honeysuckle	Lonicera periclymenum
Hornbeam	Carpinus betulus
Horse chestnut	Aesculus hippocastanum
Ivy	Hedera sp.
Ivy-leaved speedwell	Veronica heterifolia
Japanese knotweed	Fallopia japonica
Japanese skimmia	Skimmia japonica
Lesser celandine	Ranunculus ficaria
Lesser trefoil	Trifolium dubium
Leyland cypress	Cupressus × leylandii
Lords and Ladies	Arum maculatum
Marsh foxtail	Alopecurus geniculatus

Common name	Scientific name
Marsh marigold	Caltha palustris
Marsh orchid	Dactylorhiza sp.
Meadow buttercup	Ranunculus acris
Meadow foxtail	Alopecurus pratensis
Mouse-ear hawkweed	Hieracium pilosella
Mugwort	Artemisia vulgaris
Oil-seed rape	Brassica napus
Opposite leaved golden saxifrage	Chrysosplenium oppositifolium
Oxeye daisy	Leucanthemum vulgare
Pedunculate oak	Quercus robur
Pendulous sedge	Carex pendula
Perennial ryegrass	Lolium perenne
Pineappleweed	Matricaria discoidea
Pond sedge	Carex sp.
Poplar	Populus sp.
Primrose	Primula vulgaris
Raspberry	Rubus idaeus
Red campion	Silene dioica
Red clover	Trifolium pratense
Red dead nettle	Lamium purpurea
Red fescue	Festuca rubra
Reed canary-grass	Phalaris arundinacea
Rhododendron	Rhododendron ponticum
Ribwort plantain	Plantago lanceolata
Rosebay willowherb	Chamerion angustifolium
Rough meadowgrass	Poa trivialis

Common name	Scientific name
Rowan	Sorbus aucuparia
Scentless mayweed	Tripleurospermum inodorum
Scots pine	Pinus sylvestris
Selfheal	Prunella vulgaris
Sessile oak	Quercus petraea
Sharp flowered rush	Juncus acutiflorus
Sheep's fescue	Festuca ovina
Sheep's sorrel	Rumex acetosella
Shepherd's purse	Capsella bursa-pastoris
Silver birch	Betula pendula
Silverweed	Potentilla anserina
Snowberry	Symphoricarpos albus
Snowdrop	Galanthus nivalis
Soft brome	Bromus hordeaceus
Soft rush	Juncus effusus
Soft shield-fern	Polystichum setiferum
Spanish bluebell	Hyacinthoides hispanica
Spear thistle	Cirsium vulgare
Square-stalked willowherb	Epilobium tetragonum
St John's wort	Hypericum sp.
Sweet vernal grass	Anthoxanthum odoratum
Sycamore	Acer pseudoplatanus
Tall fescue	Festuca arundinacea
Teasel	Dipsacus fullonum
Thyme-leaved speedwell	Veronica serpyllifolia
Timothy	Phleum pratense

Common name	Scientific name
Tormentil	Potentilla erecta
Tufted vetch	Vicia cracca
Water fern	Azolla filiculoides
Water figwort	Scrophularia auriculata
Water forget-me-not	Myosotis scorpioides
Water starwort	Callitriche stagnalis
Wheat	Triticum aestivum
White clover	Trifolium repens
White dead nettle	Lamium album
Whitebeam	Sorbus aria
Wild angelica	Angelica sylvestris
Wild carrot	Daucus carota
Wild garlic	Allium ursinum
Wild strawberry	Fragaria vesca
Willow	Salix spp.
Willow-leaved cotoneaster	Cotoneaster salicifolius
Wood anemone	Anemone nemorosa
Wood avens	Geum urbanum
Yarrow	Achillea millefolium
Yellow iris	Iris pseudacorus
Yew	Taxus baccata
Yorkshire fog	Holcus lanatus

Annex 5C 4 Watercourse Priority Status

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
River Mersey / NEW36	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Upper Mersey Estuary LWS designated for open running water	1 from criterion level B (Otter footprint seen along reach of watercourse surveyed)	Yes
Penketh Brook / RVX-04-00-00-005	Watercourse not included on	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	1 from criterion level B	No

[34] Crossing references in accordance with HyNet Pipeline Crossing Schedule (HYN02-PL-SCH-WDG-0000-0001, Revision A02) and 'NEW' potential crossing locations identified at the time of survey which were additional to those listed within the A02 schedule.
[35] Environment Agency (No Date) Catchment Data Explorer (Online). Available at: https://environment.data.gov.uk/catchment-planning/WaterBody/GB112068060463 (Accessed March 2024).
[36] (H3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation).

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
	catchment data explorer						(Potential water vole footprints and droppings along reach of watercourse surveyed)	
Pendlebury Brook / RVX-04-03-01-001, STRX-04-03-01-004, STRX-04-03-00-004	Not of desired status (also known as Sutton Brook)	Information not known	Habitat not present	N/A	Information not known	Pendlebury Brook LWS designated for breeding water vole	None recorded	No
Whitely Brook / RVX-03-00-00-001	Watercourse not included on catchment data explorer	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	None recorded	No

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
Gale Brook / RVX-03-00-00-002	Watercourse not included on catchment data explorer	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	1 from criterion level B (Possible otter resting place along reach of watercourse surveyed)	No
Crowley Brook / RVX-03-00-00-003	Watercourse not included on catchment data explorer	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	2 from criterion level B (Possible otter resting place and water vole burrows along reach of watercourse surveyed)	No

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
Agden Brook / RVX-03-00-00-004	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	1 from criterion level B (Possible otter resting place and footprints along reach of watercourse surveyed)	No
River Bollin / RVX-03-00-00-005	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	1 from criterion level B (Otter anal jelly, footprints, resting places along reach of watercourse surveyed)	No

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
Caldwell Brook / RVX-03-00-00-006	Watercourse not included on catchment data explorer	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	1 from criterion level B (Possible water vole burrows along reach of watercourse surveyed)	No
Sinderland Brook / RVX-03-00-00-007	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	None recorded	No
River Weaver (Dane to Frodsham) / RVX-02-00-00-001	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	None recorded	No
River Weaver (Winsford	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Weaver Valley/Newbridge	1 from criterion	No

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
Flashes to Dane) / NEW15						Pool LWS – not of desired designation	level B (Otter spraint along reach of watercourse surveyed)	
River Dane / RVX-02-00-00-004	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	2 from criterion level B (Otter footprints and spraint. Water vole footprints along reach of watercourse surveyed)	No
Grange Brook / RVX-02-00-00-002	Watercourse not included on	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	2 from criterion level B	No

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
	catchment data explorer						(Water vole footprints and burrows. Possible otter resting sites along reach of watercourse surveyed)	
Small tributary of the River Weaver / NEW42	Watercourse not included on catchment data explorer	Information not known	Habitat not present	N/A	Information not known	Heys Wood and the Riddings LWS – not of desired designation	1 from criterion level B (Possible water vole evidence along reach of watercourse surveyed)	No

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
Puddinglake Brook / RVX-02-00-00-005	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	1 from criterion level B (Possible otter resting place along reach of watercourse surveyed)	No
River Weaver (Dane to Frodsham) / RVX-01-01-00-002, RVX-01-00-00-015	Not of desired status	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	None recorded (Possible otter resting place, slide and footprints along reach of watercourse surveyed)	No

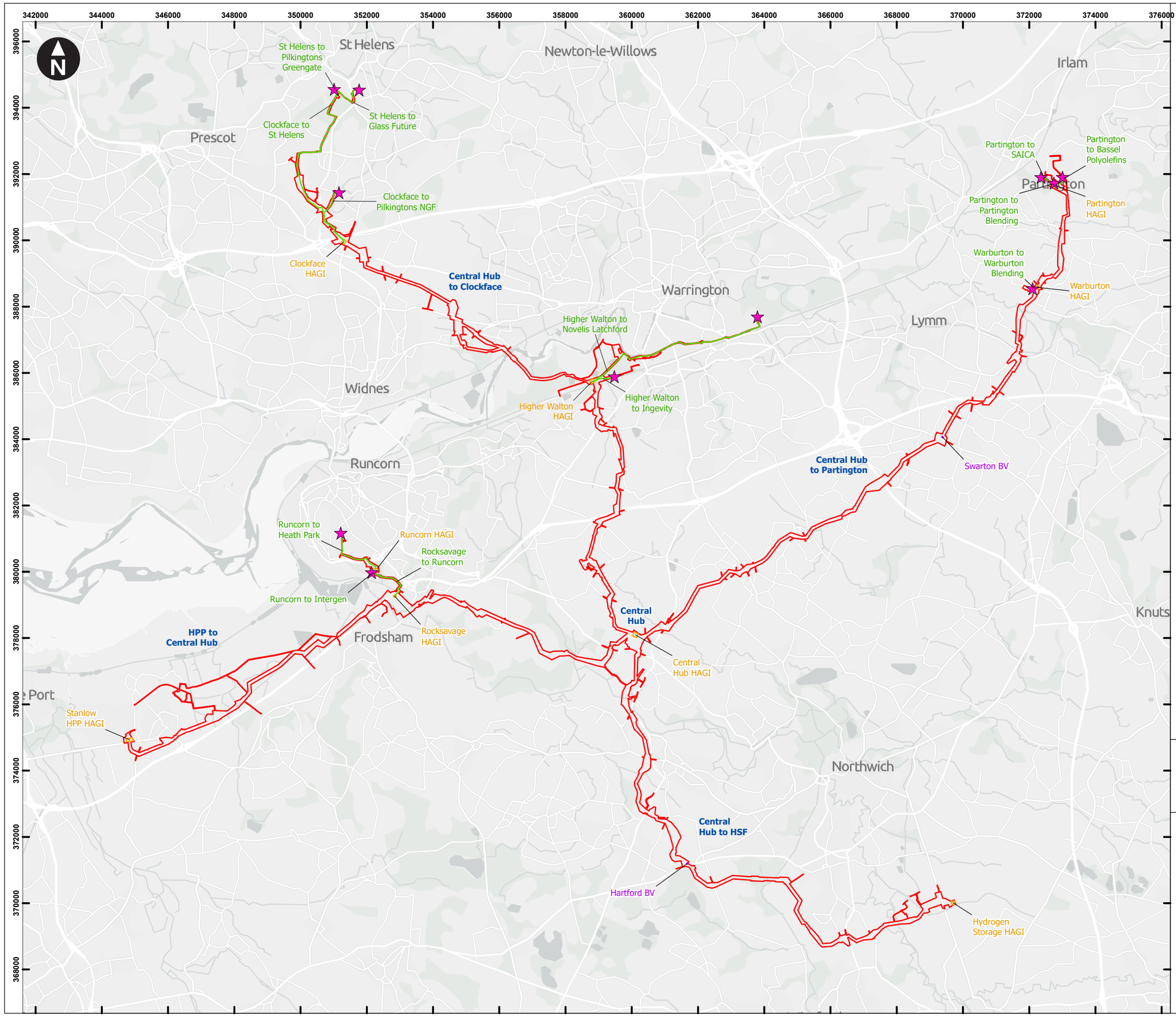
Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
Hornsmill Brook / RVX-01-00-00-003	Moderate and good (also named Peckmill Brook, Hoolpool Gutter at Ince Marshes)	Information not known	Habitat not present	N/A	Information not known	Frodsham, Helsby and Ince Marshes – not of desired designation	1 from criterion level B (Potential otter resting place along reach of watercourse surveyed)	No
Longacre Brook / RVX-01-00-00-017	Watercourse not included on catchment data explorer	Information not known	Habitat not present	N/A	Information not known	Area/SSSI not present	1 from criterion level B (Potential otter resting place along reach of watercourse surveyed)	No
Dean Brook / NEW44	Watercourse not included on	Information not known	Habitat not present	N/A	Information not known	No SSSI/area	None recorded	No

Watercourse name / Crossing Reference[34]	Riverine water bodies of high hydromorphological / ecological status[35]	Headwaters	Occurrence of the EC Habitat Directive Annex I habitat[36]	Chalk Rivers	Active shingle rivers	A/SSSIs (Areas/Sites of Special Scientific Interest)	Species	Priority?
	catchment data explorer							
Flood Brook / STRX-01-00-00-030	Watercourse not included on catchment data explorer	Information not known	Habitat not present	N/A	Information not known	East Clifton Tip LWS – not of desired designation	None recorded	No
Small watercourse (central hub) – connected to Dean Brook / STRX-02-00-00-001	Watercourse not included on catchment data explorer	Information not known	Habitat not present	N/A	Information not known	No SSSI/area	None recorded	No

HyNet North West Hydrogen Pipeline

Delivering clean growth

Annex 5C 5 Figure 5C.1: UKHab Survey Results



C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

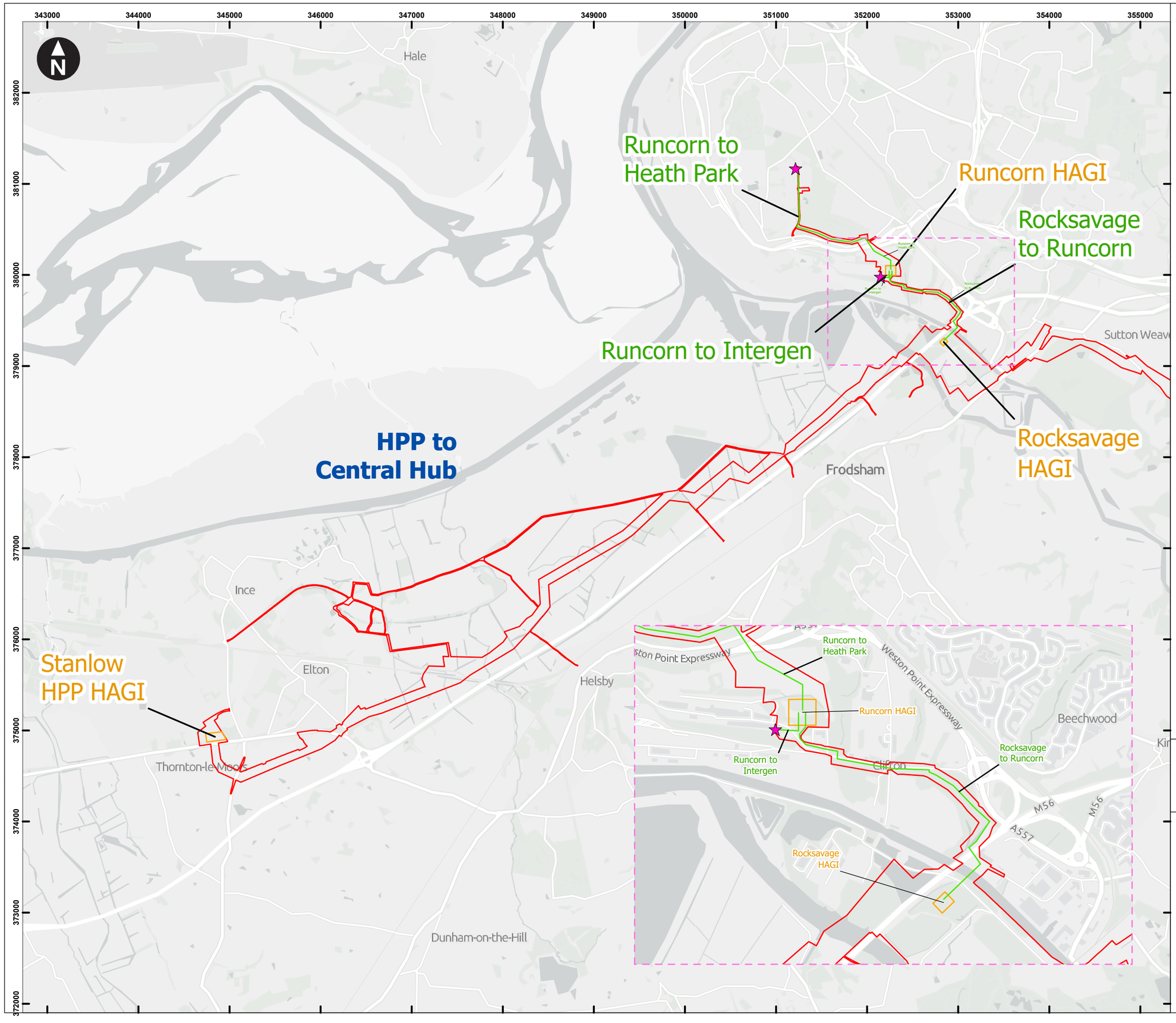
Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results Overview

October 2024



Key

- Preliminary Order Limits
- Spur Centreline
- Hydrogen Above Ground Installation (HAGI) Outline
- Block Valve Installation (BVI) Outline
- Spurline Endpoints

0 500 1,000 1,500 2,000 m

Scale at A3: 1:40,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

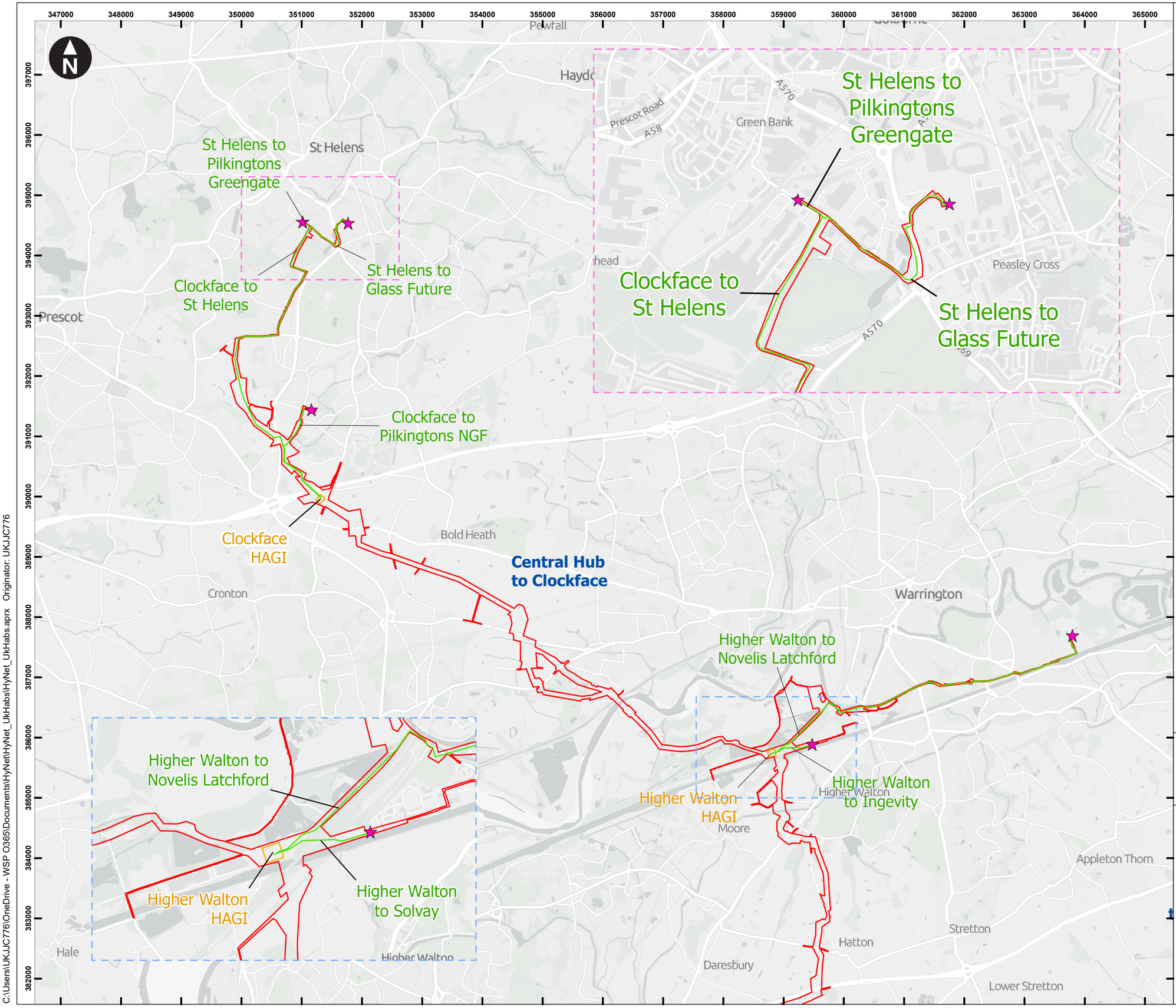
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Western Leg

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- Spur Centreline
- Hydrogen Above Ground Installation (HAGI) Outline
- Block Valve Installation (BVI) Outline
- Spurline Endpoints

0 500 1,000 1,500 2,000 2,500 3,000 3,500 m

Scale at A3: 1:60,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

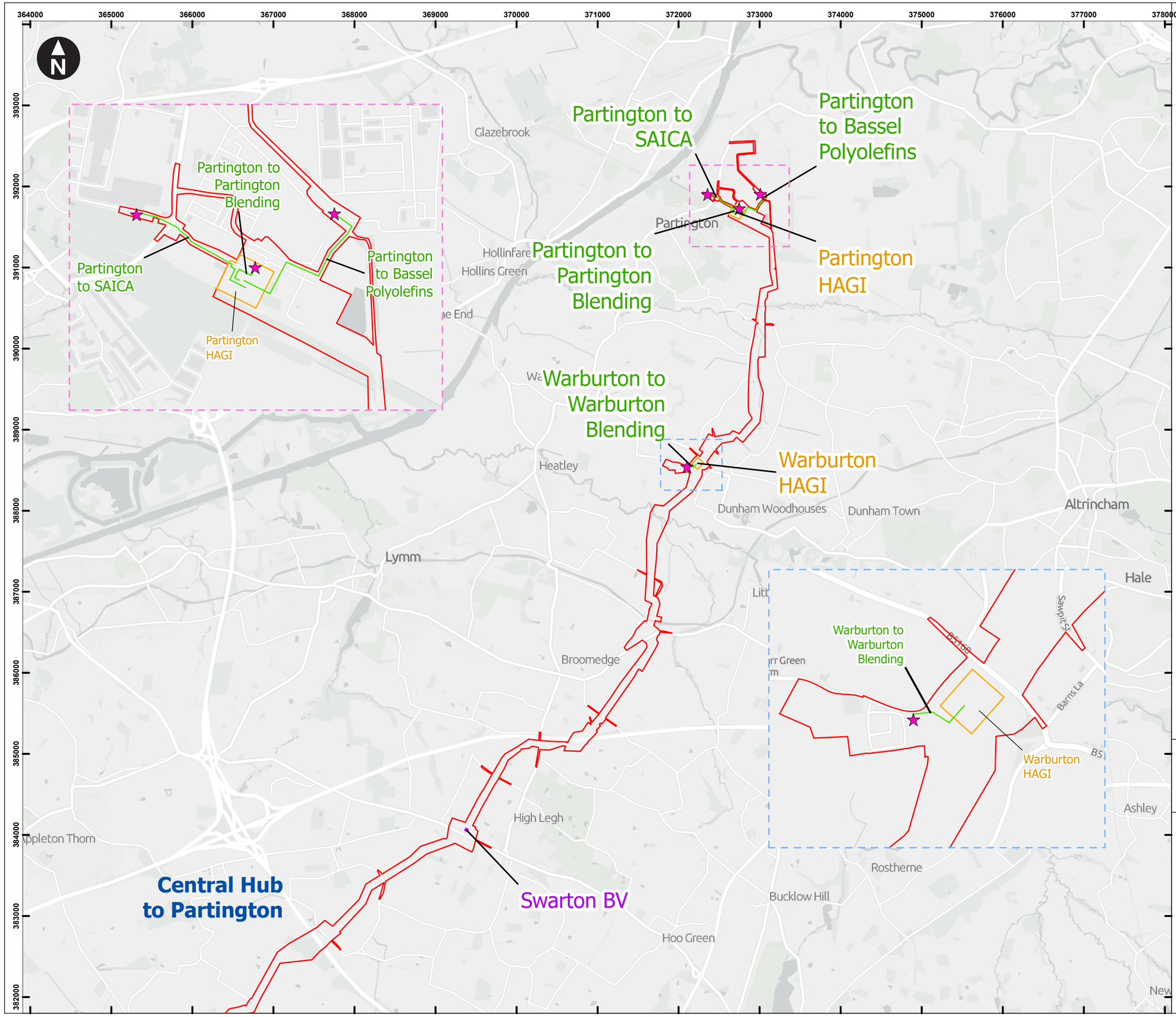
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Northern Leg

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- Spur Centreline
- Hydrogen Above Ground Installation (HAGI) Outline
- Block Valve Installation (BVI) Outline
- Spurline Endpoints

0 500 1,000 1,500 2,000 2,500 m

Scale at A3: 1:45,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

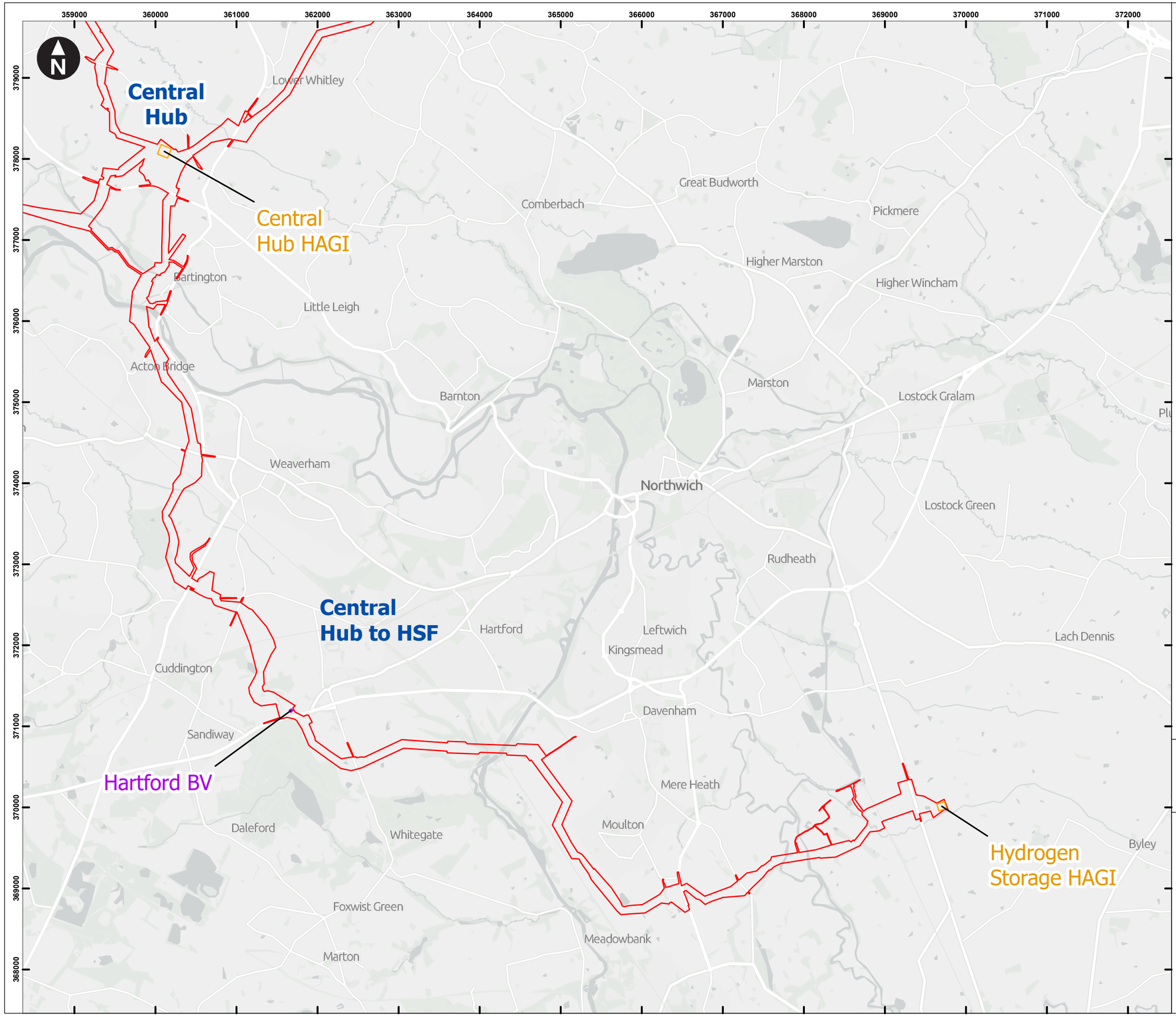
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Eastern Leg

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- Spur Centreline
- Hydrogen Above Ground Installation (HAGI) Outline
- Block Valve Installation (BVI) Outline
- Spurline Endpoints

0 500 1,000 1,500 2,000 2,500 m

Scale at A3: 1:45,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

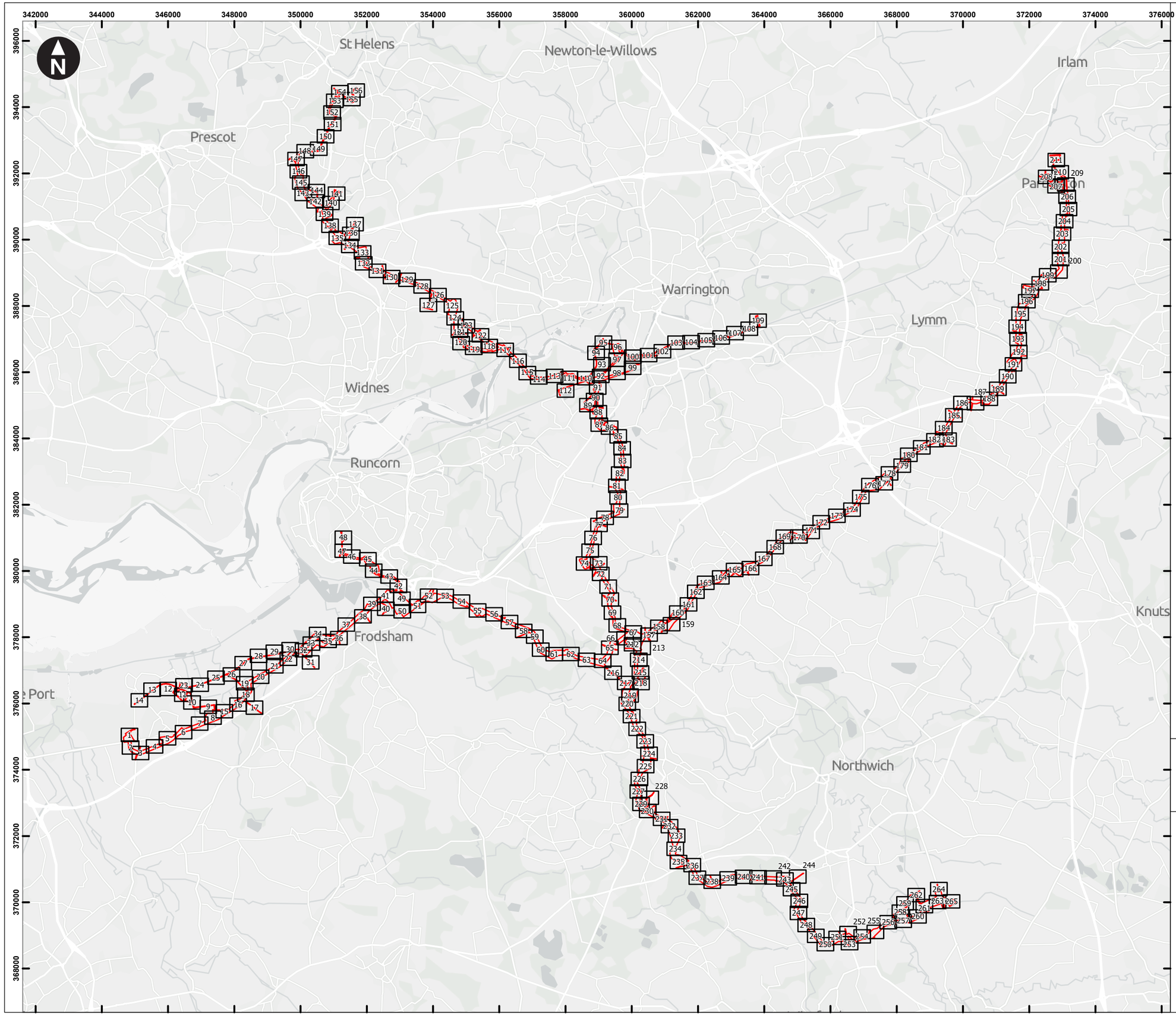
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Southern Leg & Central Hub

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results Index

October 2024

344550 344600 344650 344700 344750 344800 344850 344900 344950 345000 345050 345100

375300 375250 375200 375150 375100 375050 375000 374950 374900 374850 374800

N

La

Pool La

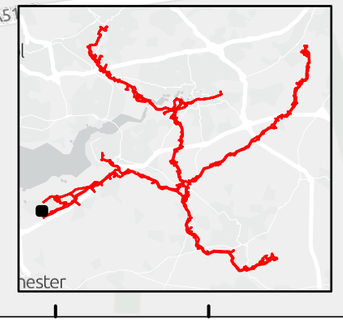
Pool La

A5117

A5117

A51

hester



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

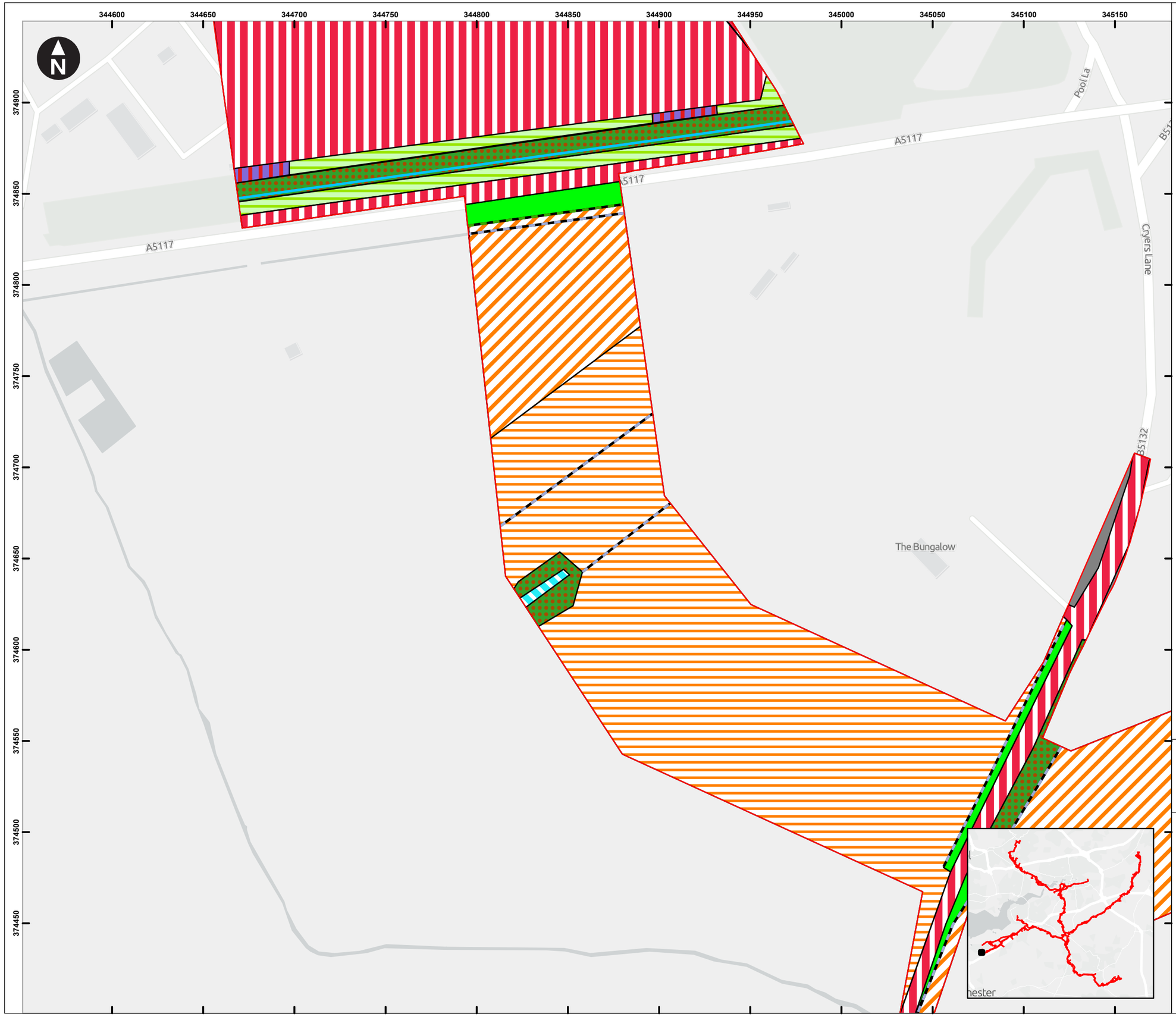
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 1 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

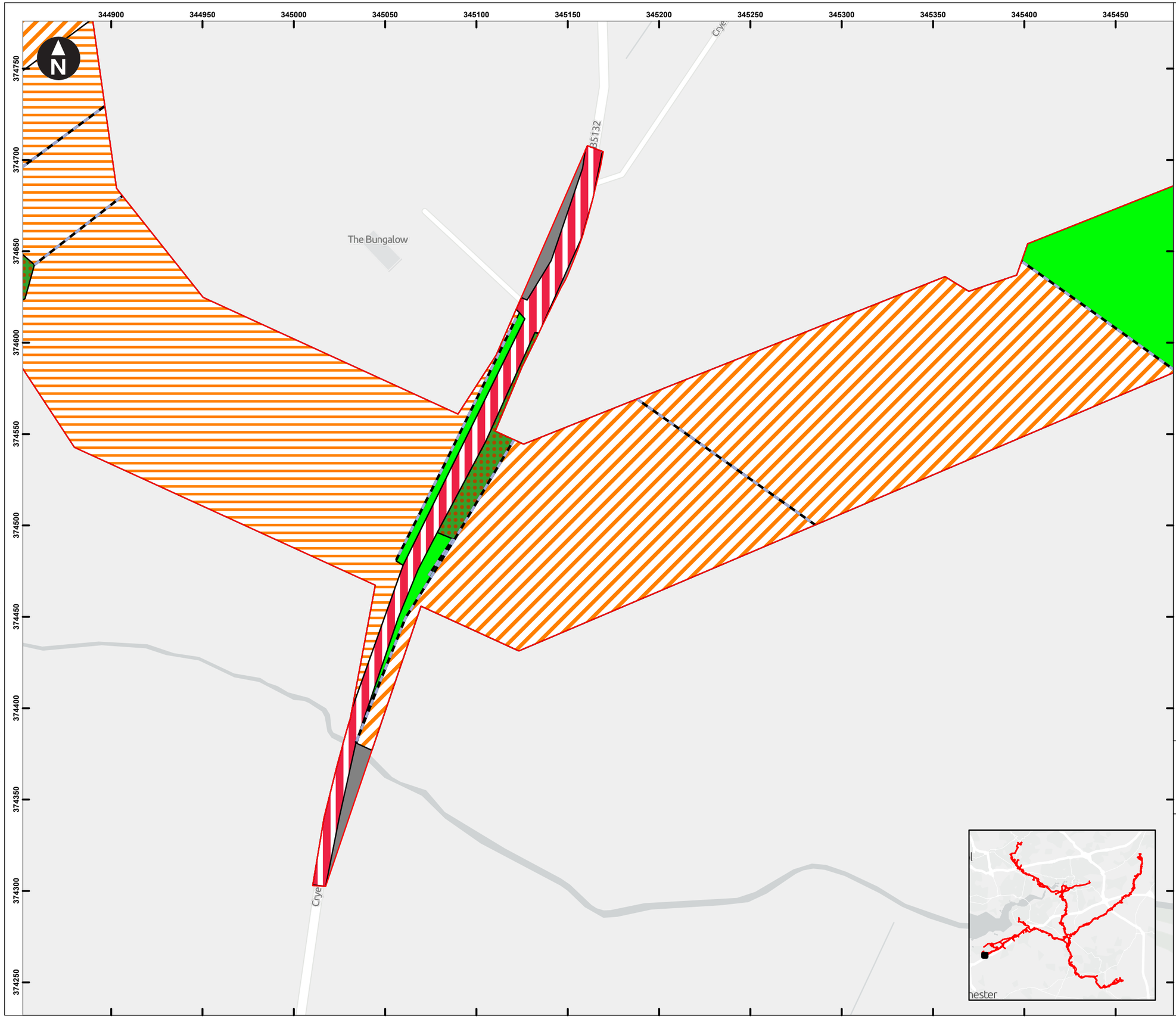
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 2 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

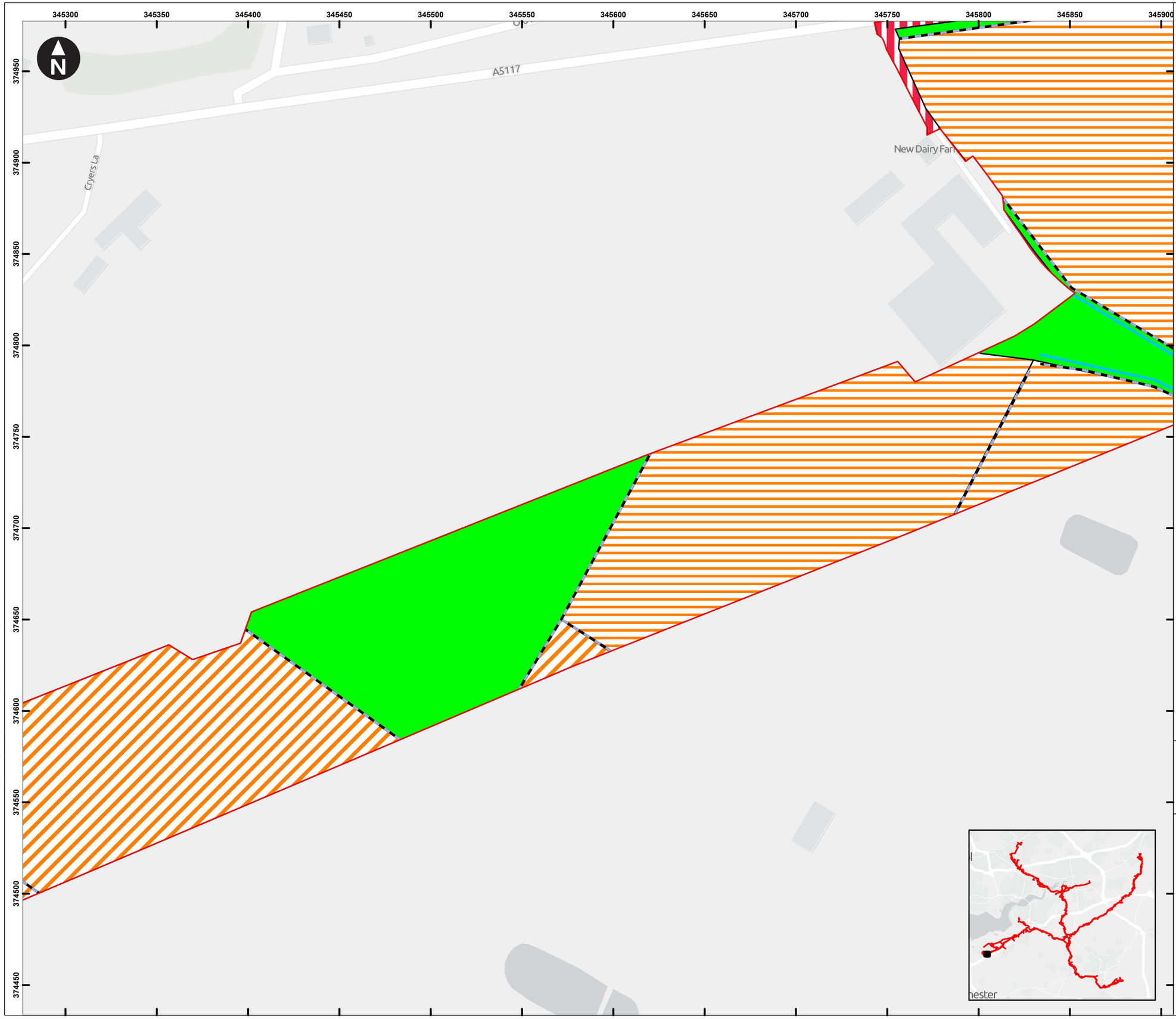
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 3 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

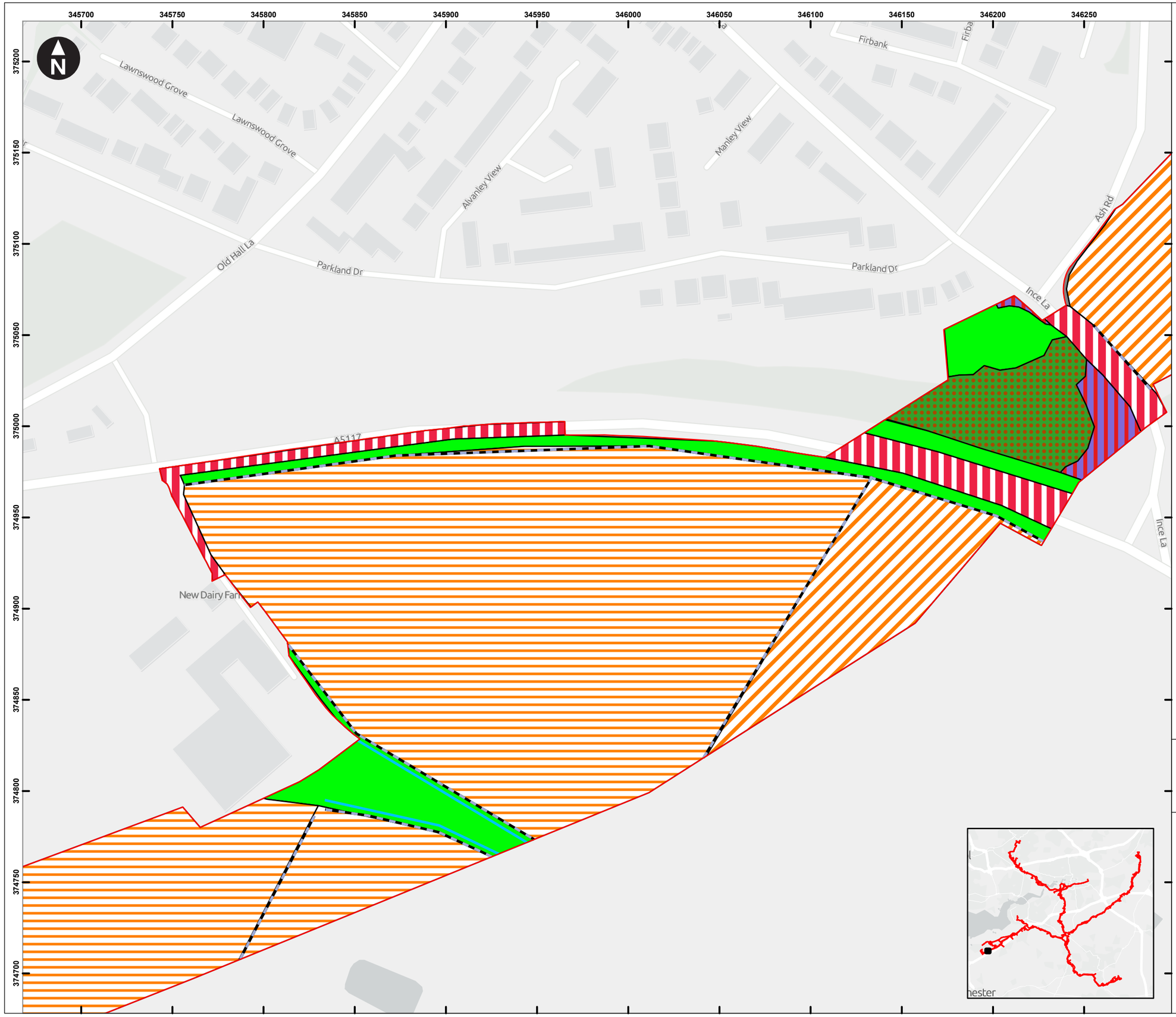
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 4 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

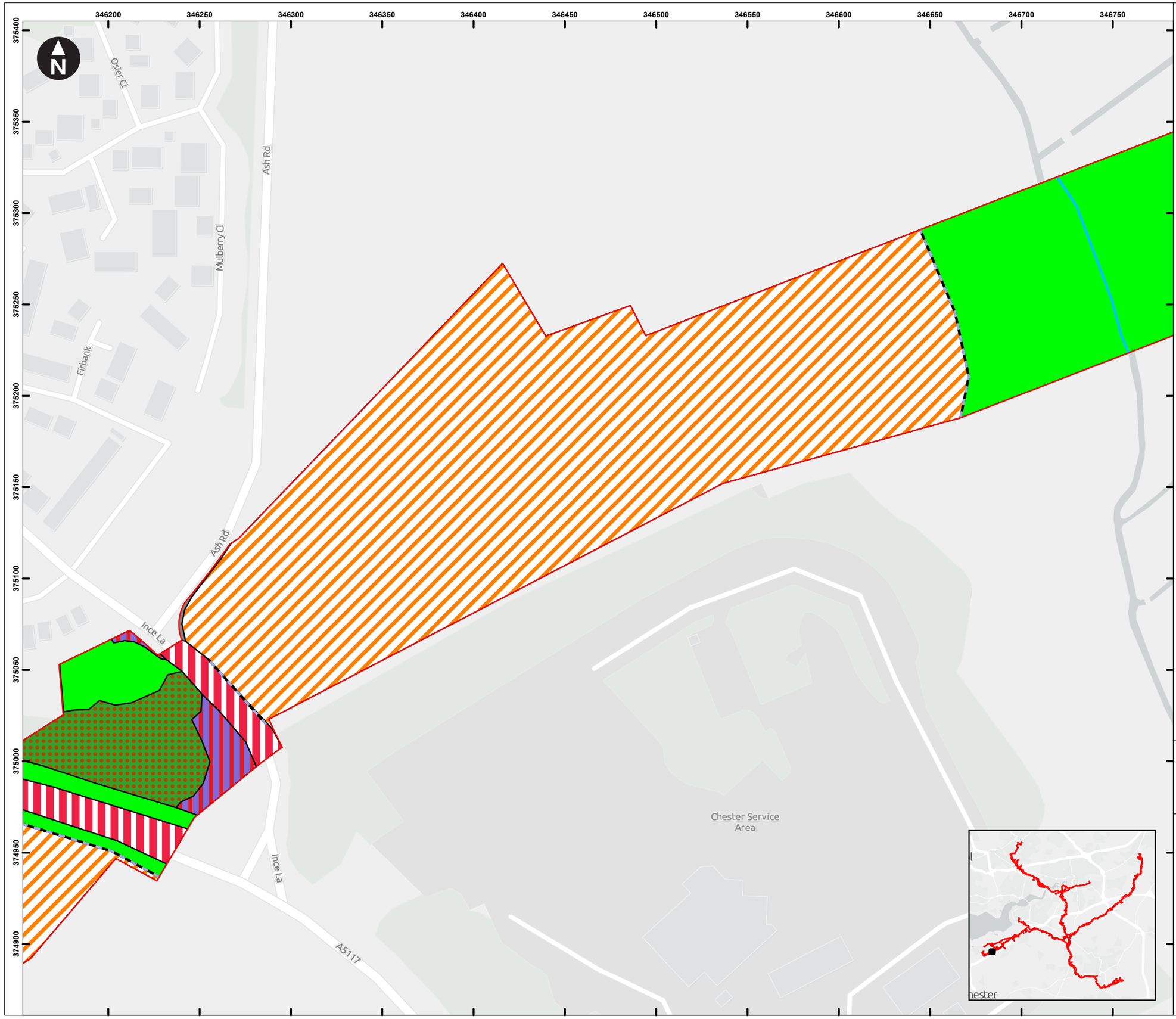
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 5 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 6 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

346650 346700 346750 346800 346850 346900 346950 347000 347050 347100 347150 347200 347250

375650 375600 375550 375500 375450 375400 375350 375300 375250 375200 375150

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

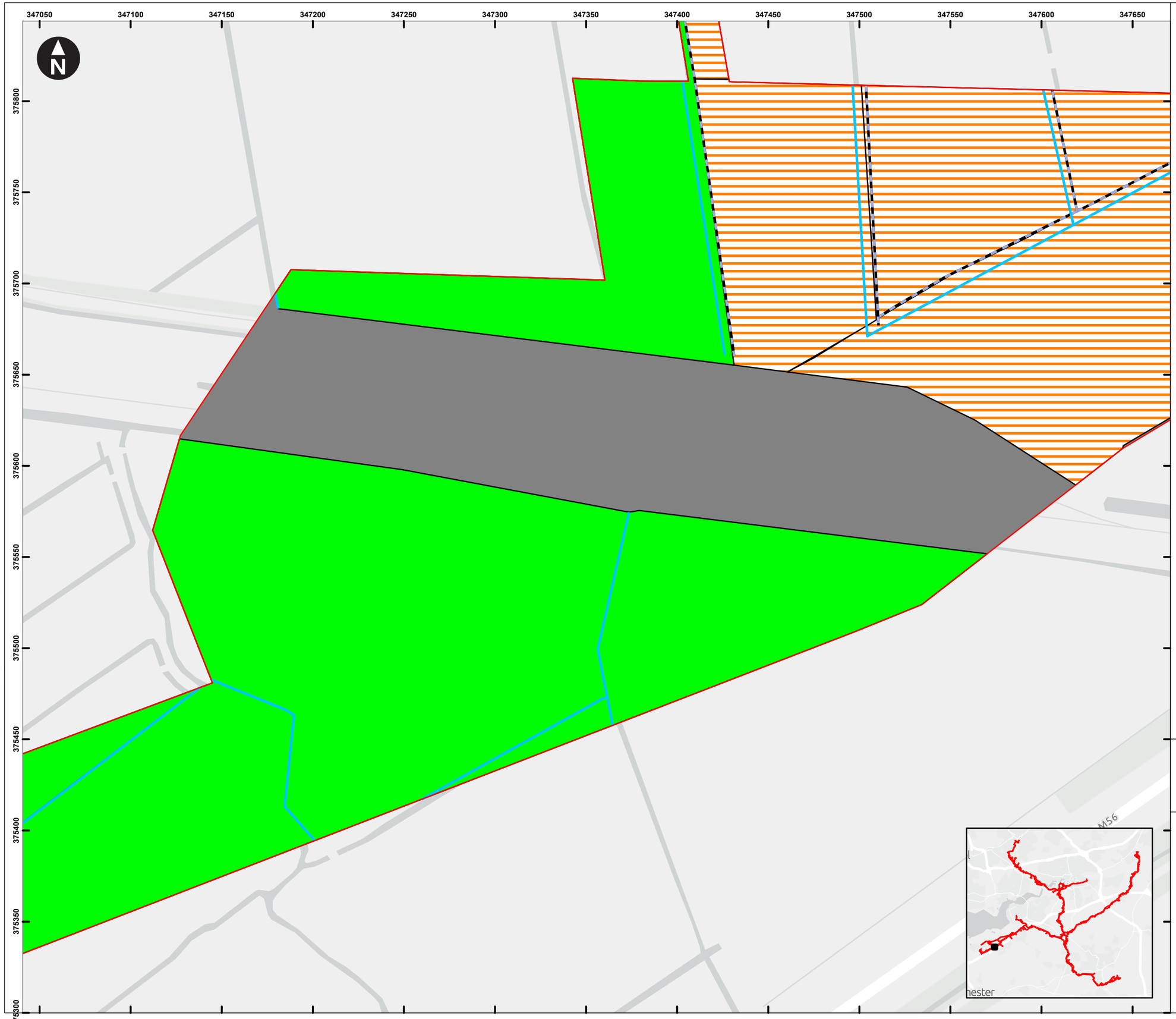
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 7 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

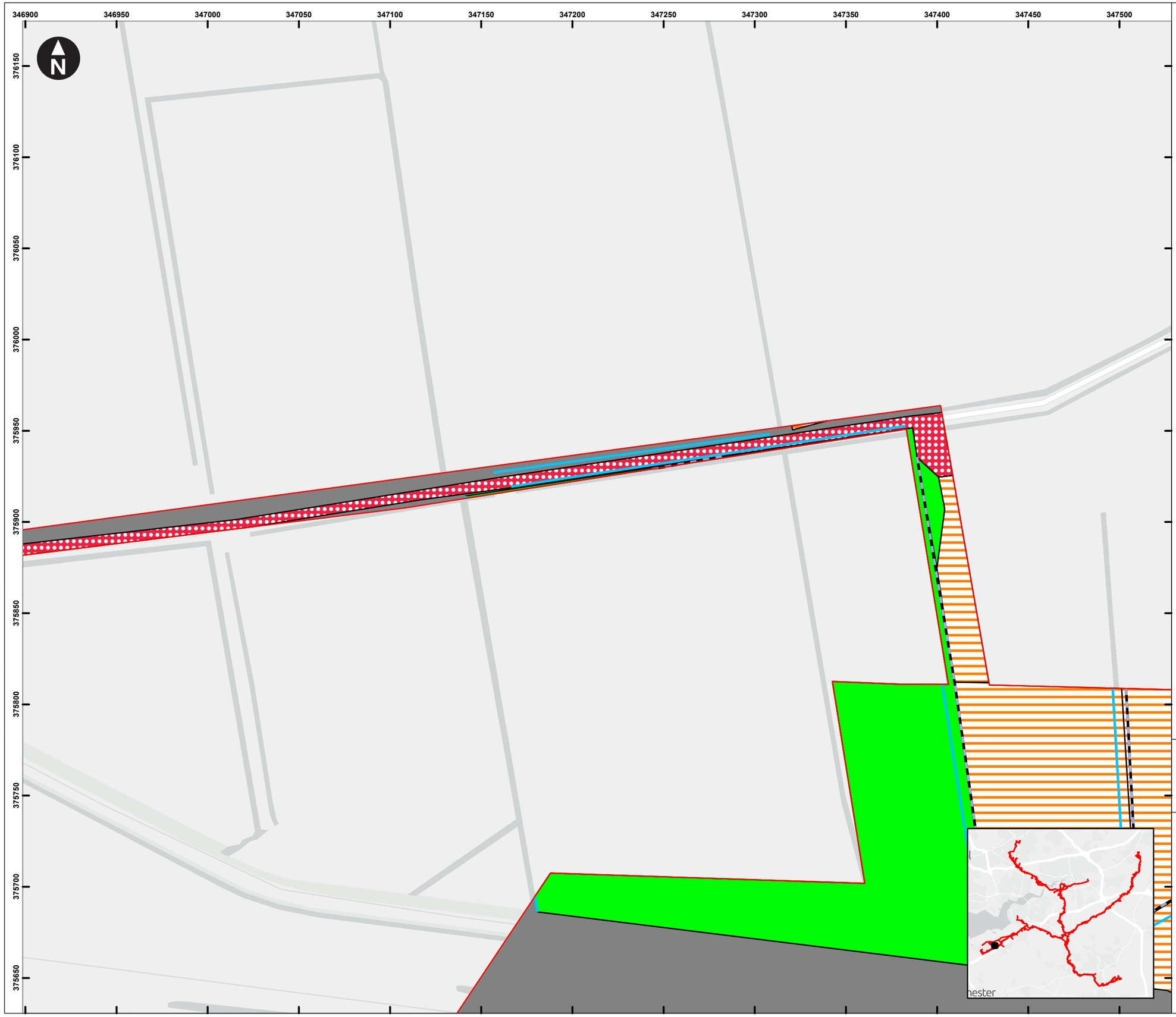
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 8 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 9 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

346450 346500 346550 346600 346650 346700 346750 346800 346850 346900 346950 347000

376300 376250 376200 376150 376100 376050 376000 375950 375900 375850 375800

N

Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 10 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

346150 346200 346250 346300 346350 346400 346450 346500 346550 346600 346650 346700 346750

376500 376450 376400 376350 376300 376250 376200 376150 376100 376050 376000

N

Key

Preliminary Order Limits

u1b - Developed land, sealed surface

u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 11 of 265

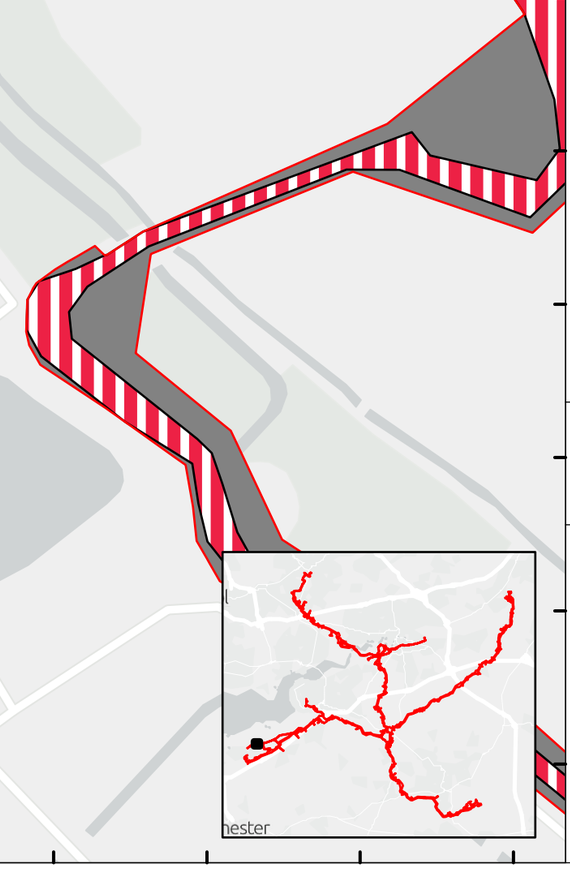
October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

345700 345750 345800 345850 345900 345950 346000 346050 346100 346150 346200 346250 346300

376700 376650 376600 376550 376500 376450 376400 376350 376300 376250 376200

N



Key

Preliminary Order Limits

u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

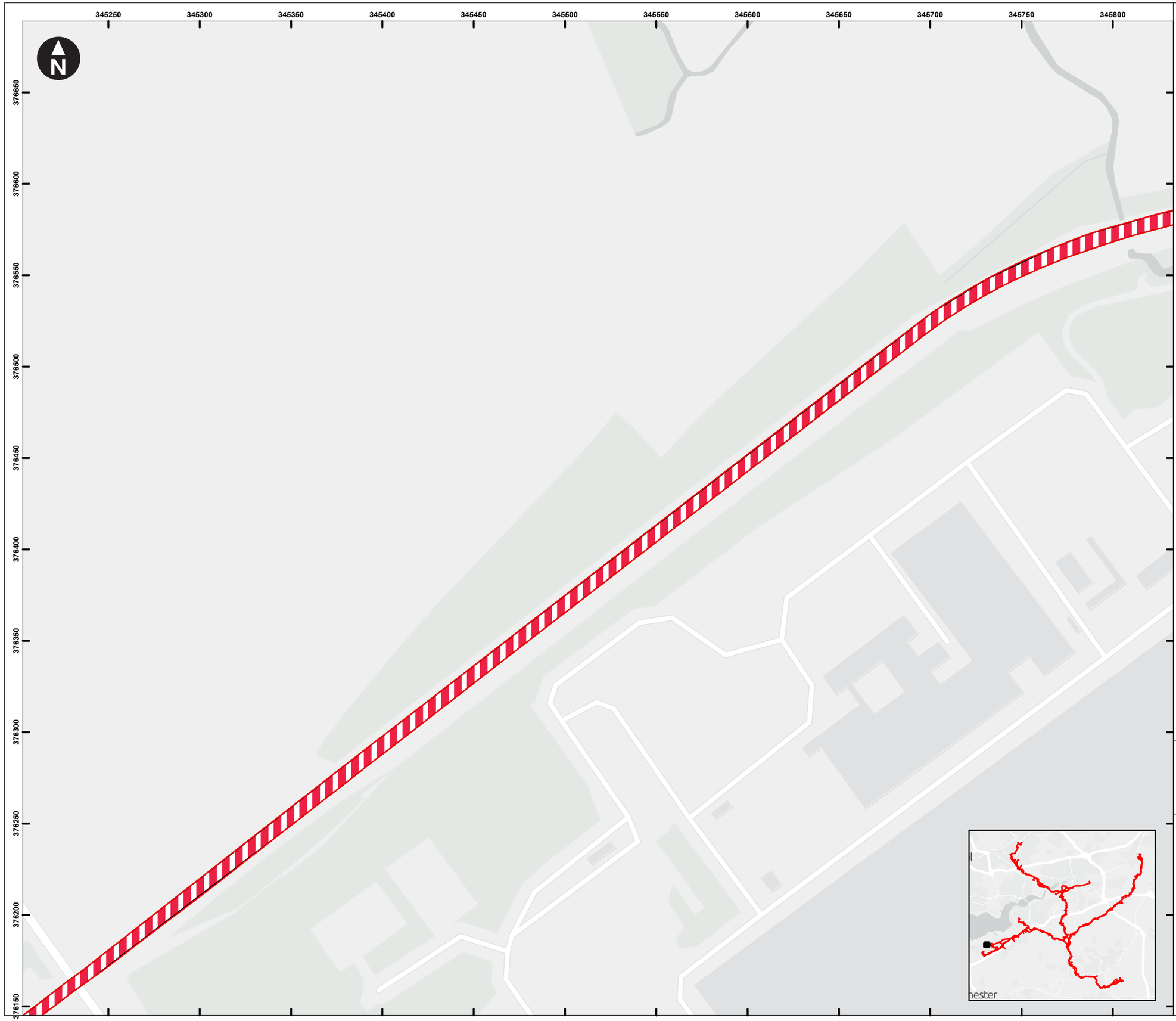
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 12 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

Preliminary Order Limits

u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 13 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

344850 344900 344950 345000 345050 345100 345150 345200 345250 345300 345350 345400

376350 376300 376250 376200 376150 376100 376050 376000 375950 375900 375850

N

St James's Church

Playing Field

Play Space

Public Park Or Garden

Pool La

Station Rd

Bare Brick House

Oil Sites Rd

Key

Preliminary Order Limits

u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 14 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

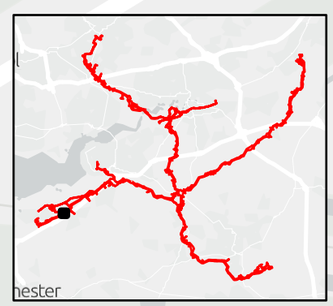
347400 347450 347500 347550 347600 347650 347700 347750 347800 347850 347900 347950 348000

376000 375950 375900 375850 375800 375750 375700 375650 375600 375550 375500

Elton La

16 16 16 48 16

M56 M56



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- u1c - Artificial unvegetated unsealed surface
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 15 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

347850 347900 347950 348000 348050 348100 348150 348200 348250 348300 348350 348400

376200 376150 376100 376050 376000 375950 375900 375850 375800 375750 375700

N

48

16

Spring Farm

M56

M56

hester

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

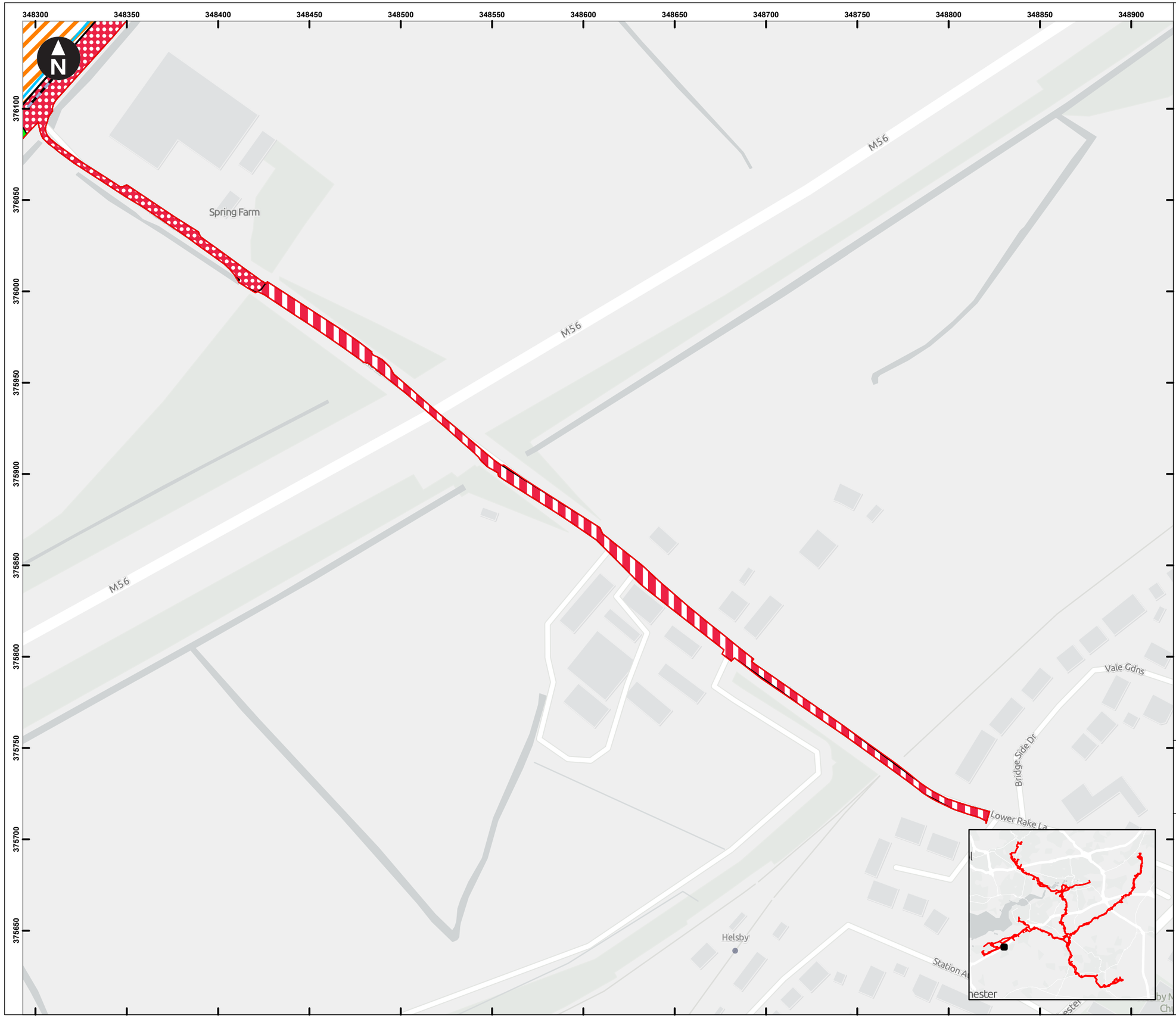
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 16 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

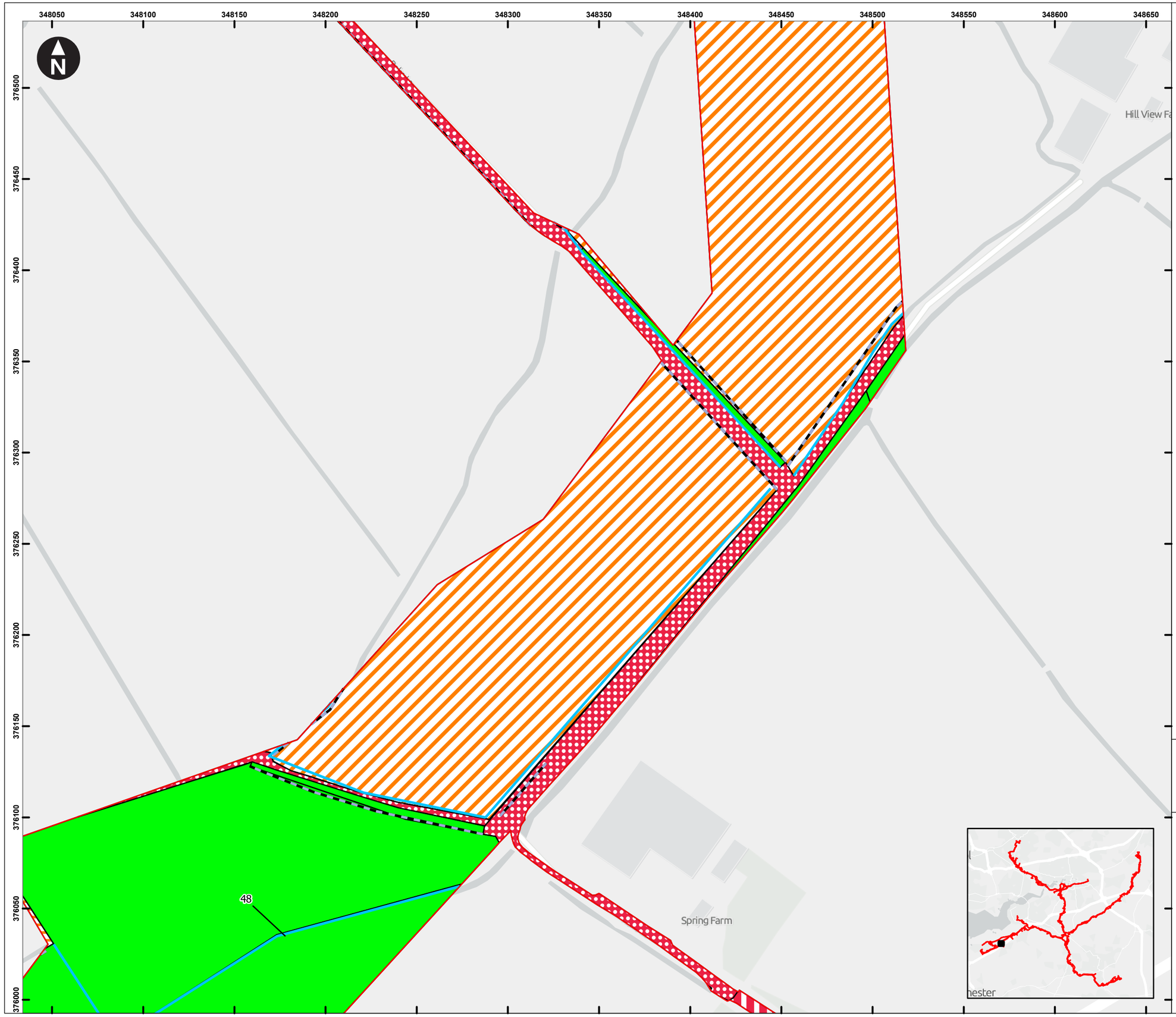
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 17 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 18 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

348000 348050 348100 348150 348200 348250 348300 348350 348400 348450 348500 348550 348600

376850 376800 376750 376700 376650 376600 376550 376500 376450 376400 376350

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 19 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

348500 348550 348600 348650 348700 348750 348800 348850 348900 348950 349000 349050 349100

377050 377000 376950 376900 376850 376800 376750 376700 376650 376600 376550

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 20 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

348950 349000 349050 349100 349150 349200 349250 349300 349350 349400 349450 349500

377350 377300 377250 377200 377150 377100 377050 377000 376950 376900

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

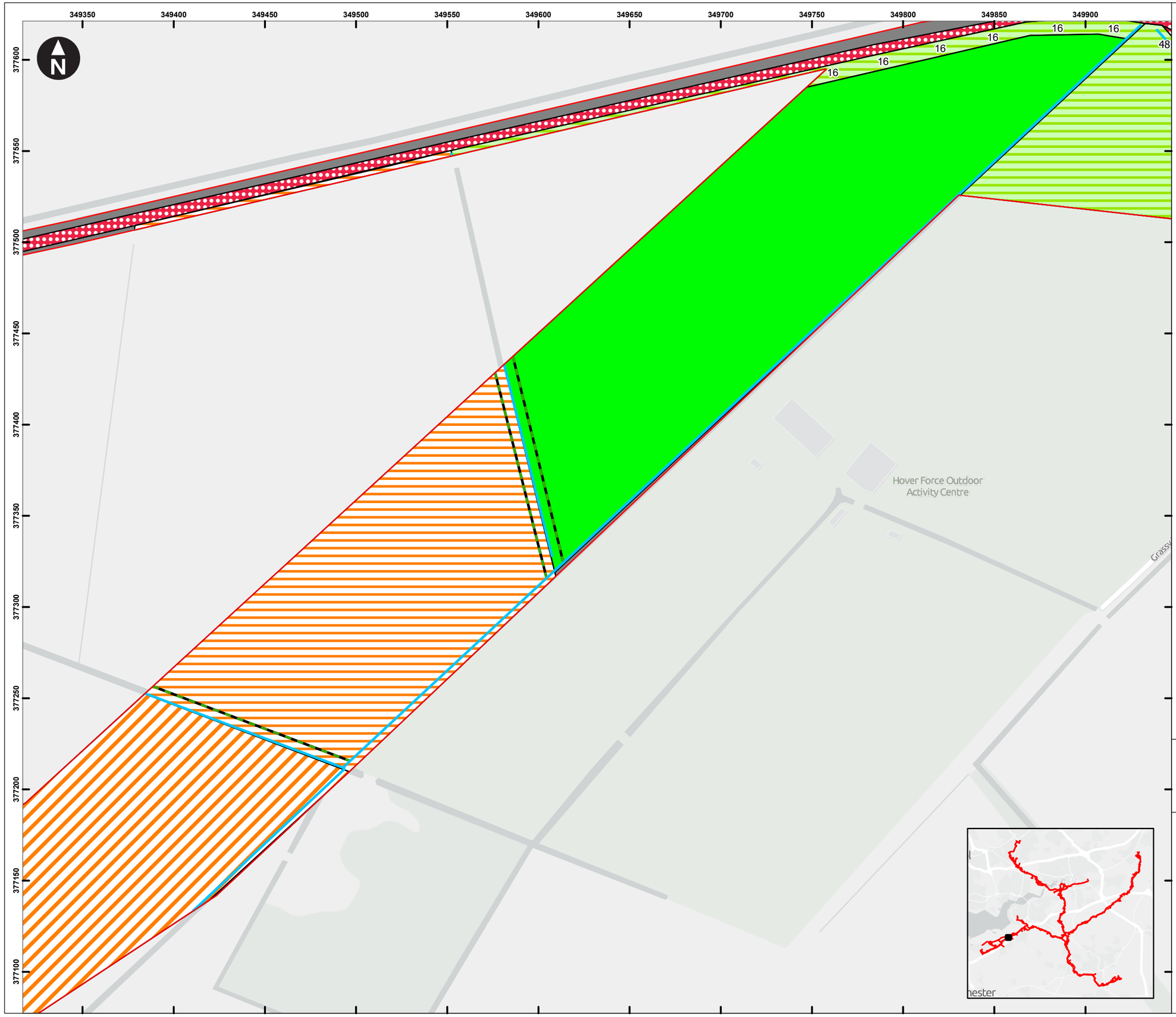
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 21 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1c - Artificial unvegetated unsealed surface
- w1g6 - Line of trees
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 22 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

346200 346250 346300 346350 346400 346450 346500 346550 346600 346650 346700 346750

376800 376750 376700 376650 376600 376550 376500 376450 376400 376350 376300

N

Marsh La

Marsh La

Marsh La

Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 23 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

346700 346750 346800 346850 346900 346950 347000 347050 347100 347150 347200 347250

376800 376750 376700 376650 376600 376550 376500 376450 376400 376350 376300

Marsh Le

Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 24 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

347150 347200 347250 347300 347350 347400 347450 347500 347550 347600 347650 347700 347750

377050 377000 376950 376900 376850 376800 376750 376700 376650 376600 376550

N

Key

Preliminary Order Limits

u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 25 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

347600 347650 347700 347750 347800 347850 347900 347950 348000 348050 348100 348150 348200

377100 377050 377000 376950 376900 376850 376800 376750 376700 376650

N

Key

- Preliminary Order Limits
- c1 - Arable and horticulture
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 26 of 265

wsp

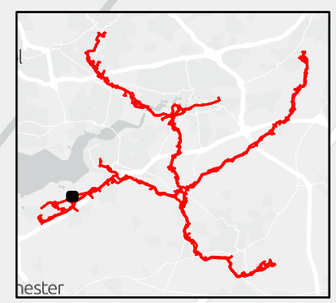
October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

348000 348050 348100 348150 348200 348250 348300 348350 348400 348450 348500 348550

377450 377400 377350 377300 377250 377200 377150 377100 377050 377000 376950

N



Key

Preliminary Order Limits

u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 27 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

348450 348500 348550 348600 348650 348700 348750 348800 348850 348900 348950 349000

377700 377650 377600 377550 377500 377450 377400 377350 377300 377250 377200

N

Key

Preliminary Order Limits

u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

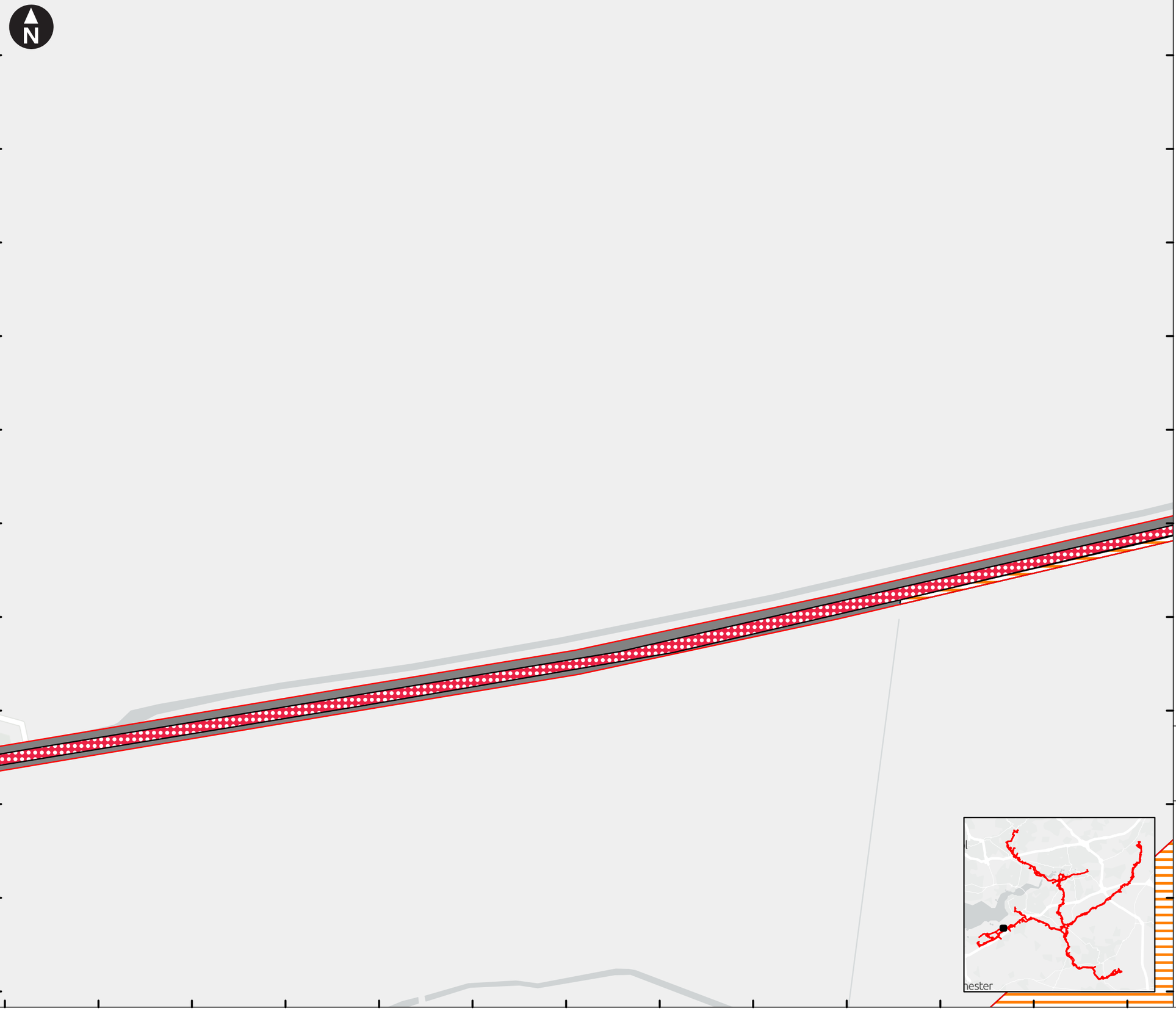
Figure 5C.1
UKHab Survey Results
Sheet: 28 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

348900 348950 349000 349050 349100 349150 349200 349250 349300 349350 349400 349450 349500

377800 377750 377700 377650 377600 377550 377500 377450 377400 377350 377300



Key

- Preliminary Order Limits
- c1c - Cereal crops
- u1c - Artificial unvegetated unsealed surface
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

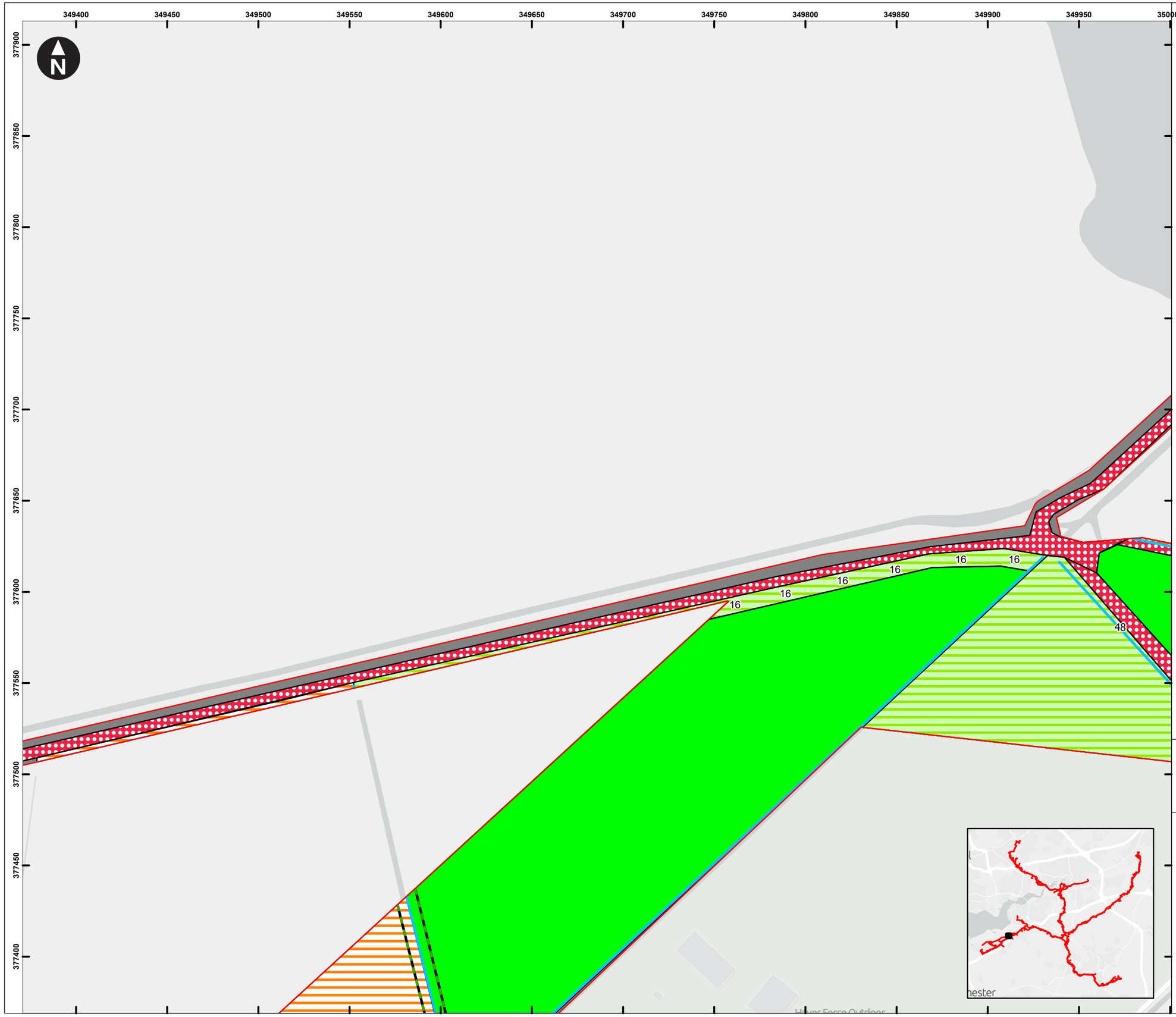
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 29 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface
- w1g6 - Line of trees
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

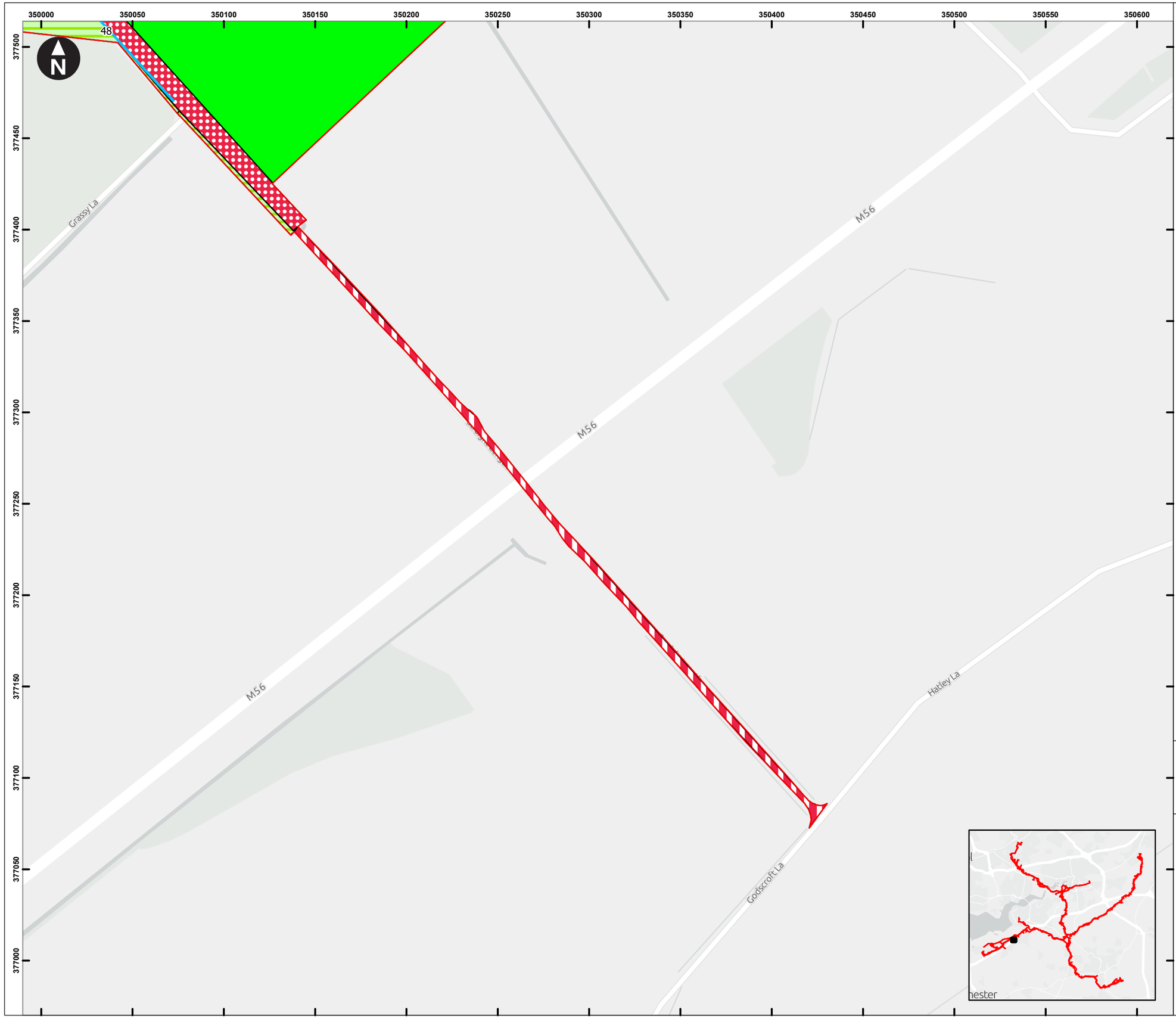
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 30 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

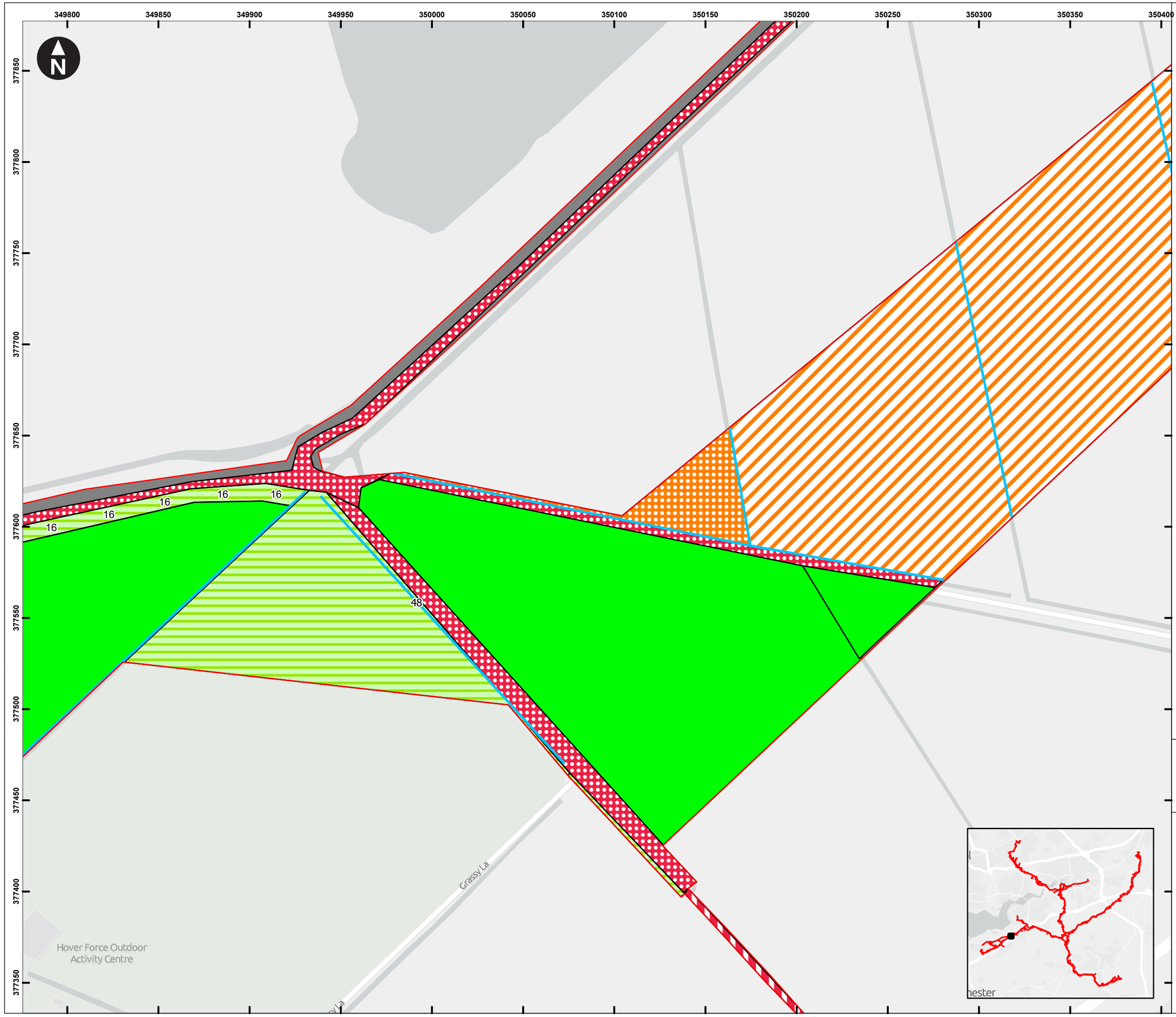
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 31 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

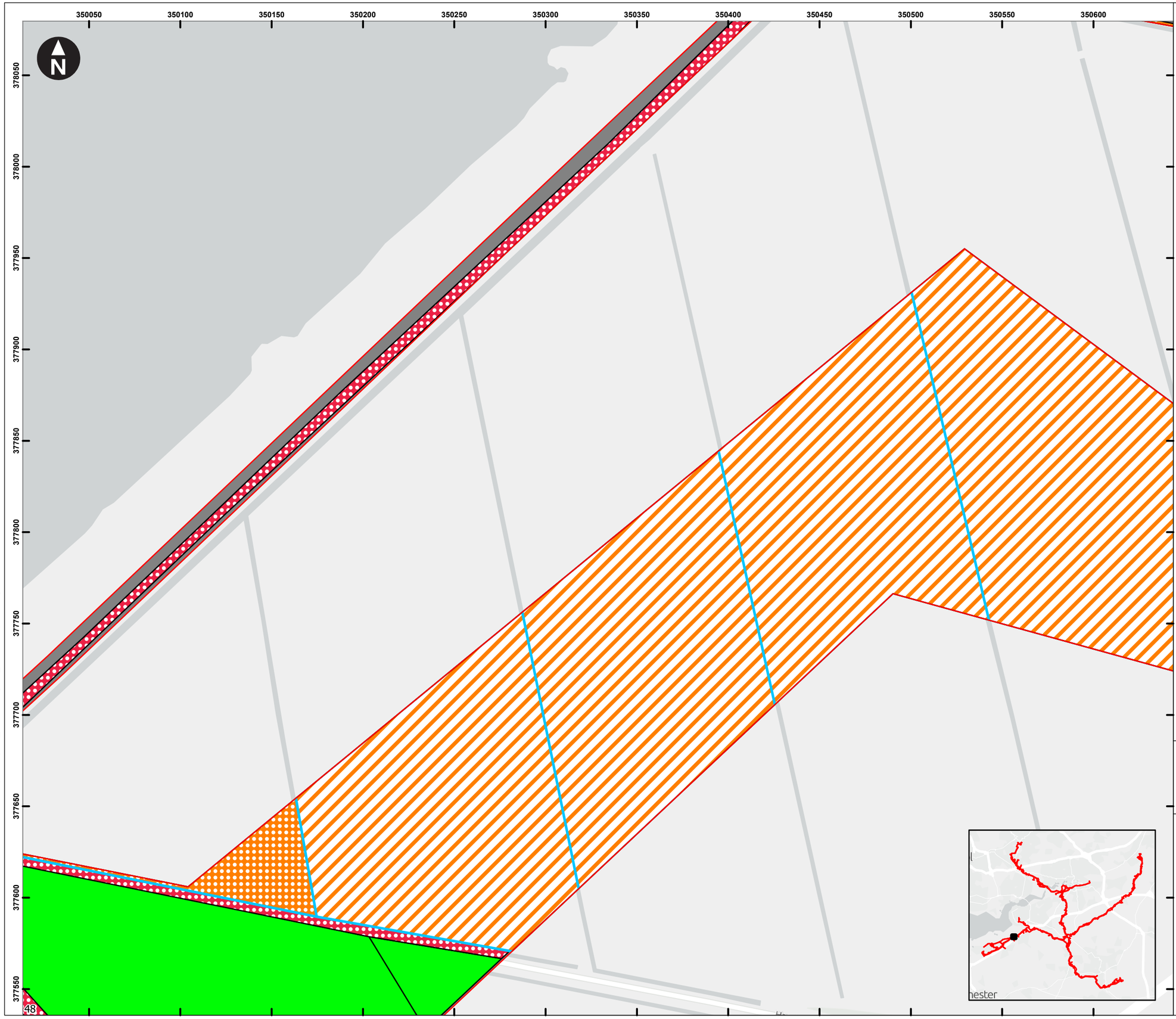
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 32 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

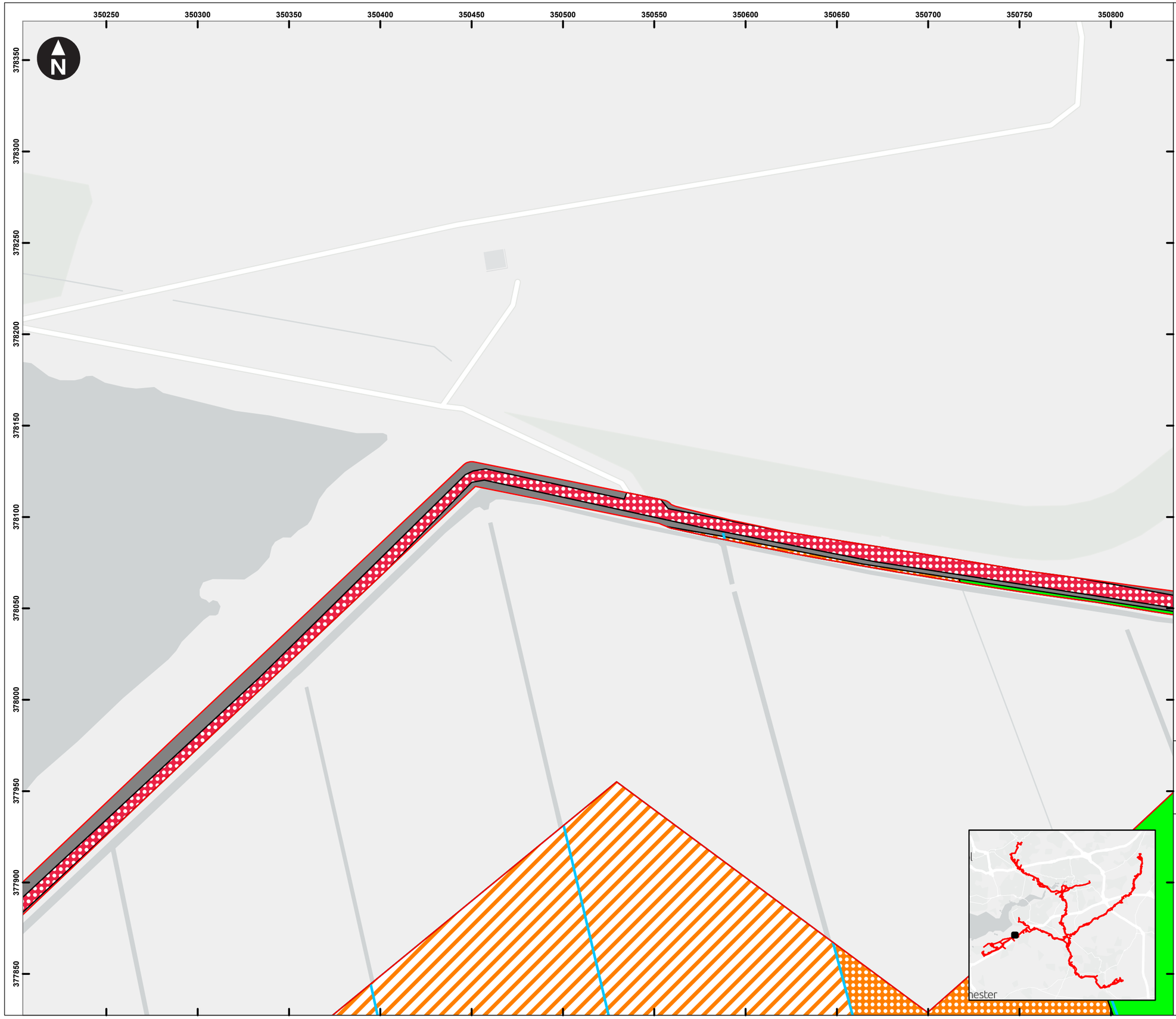
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 33 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

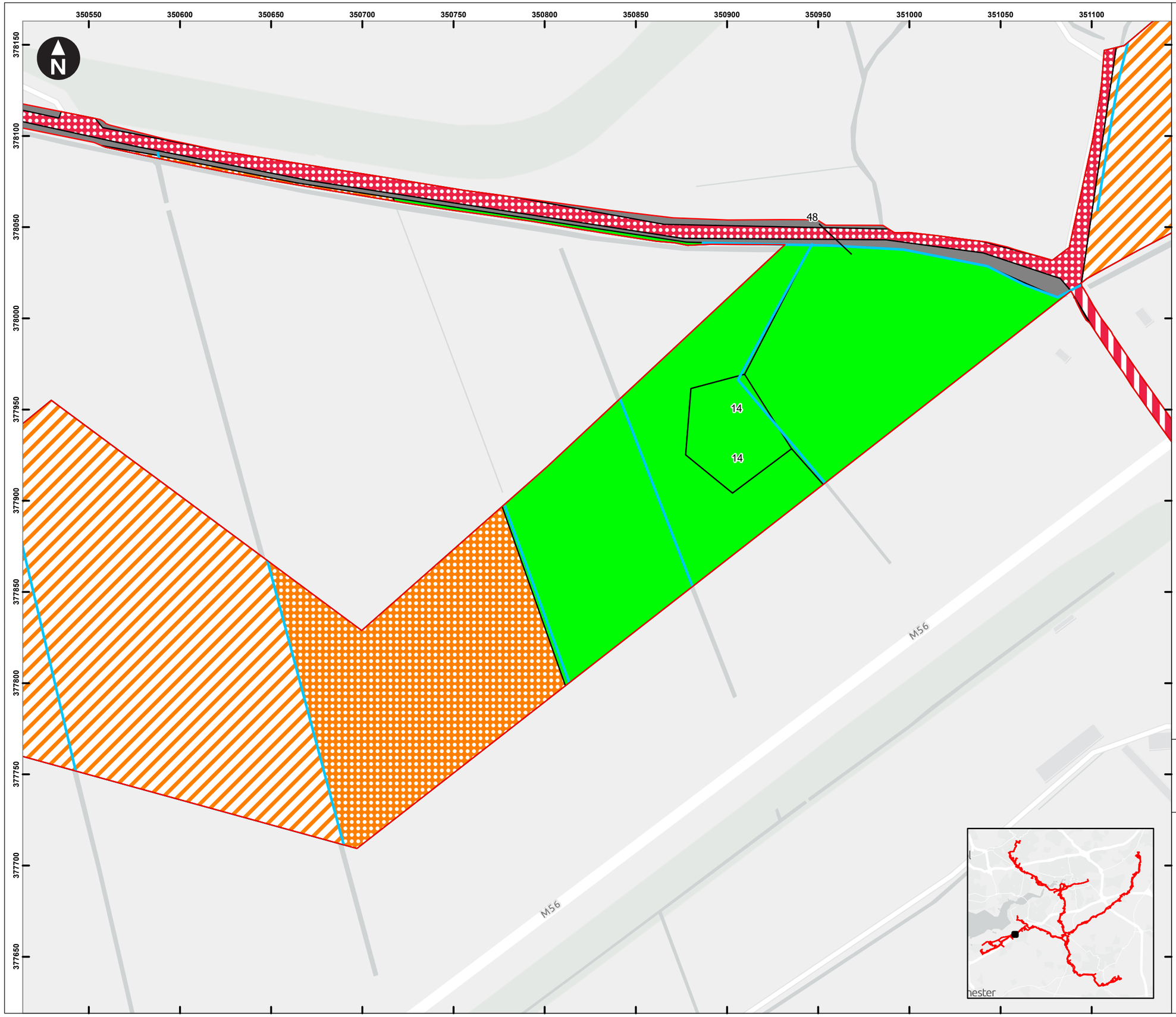
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 34 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

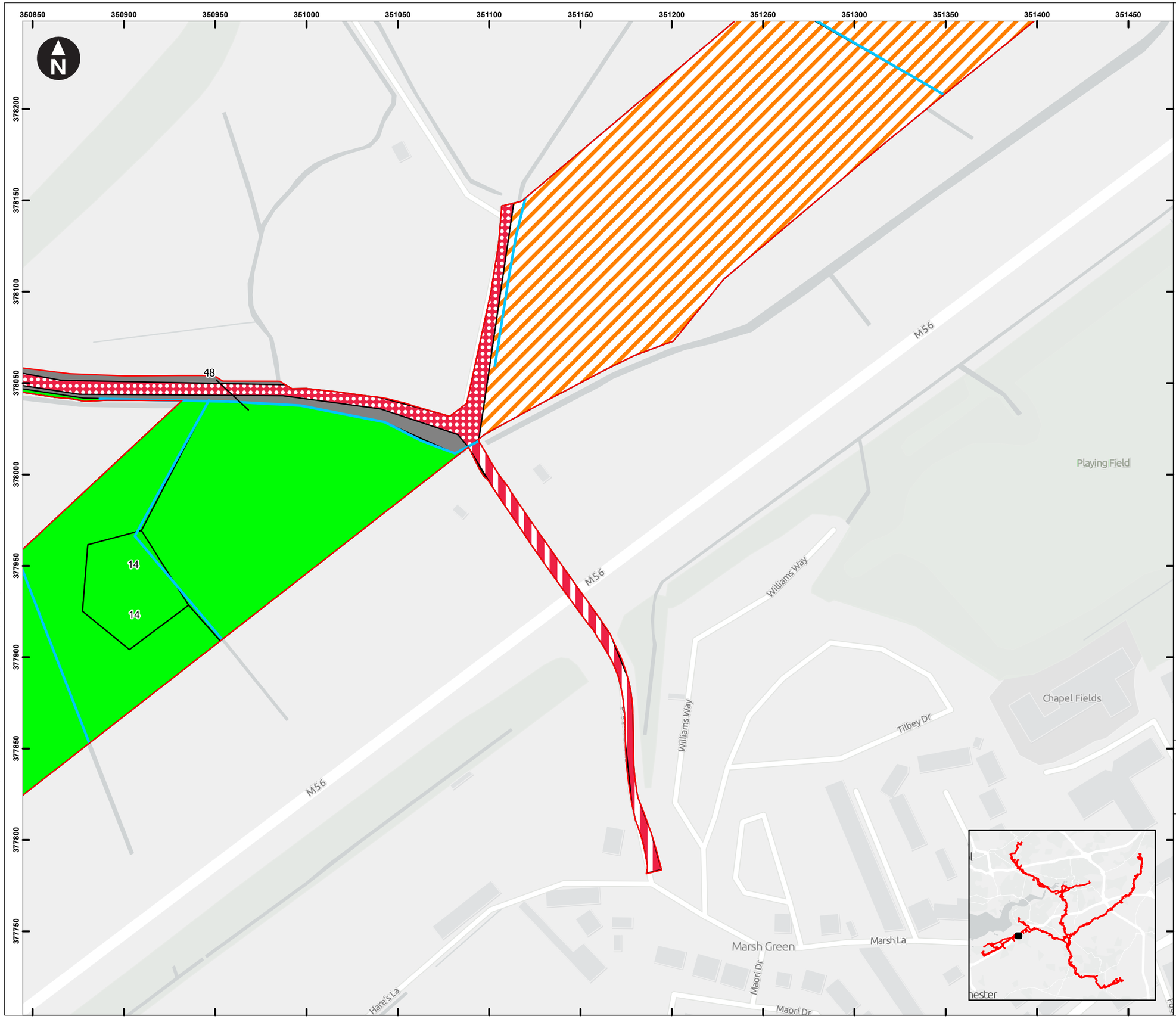
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 35 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

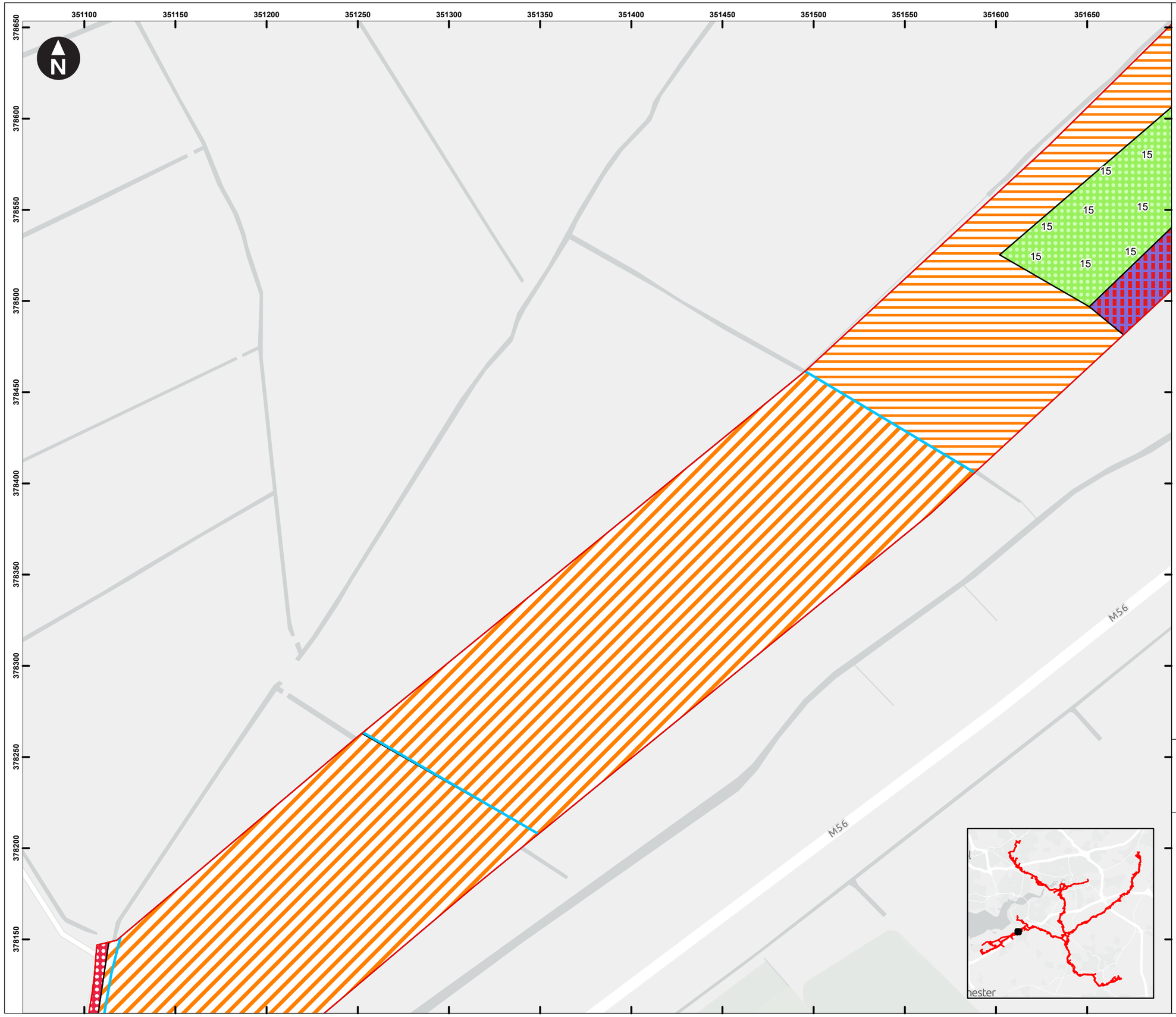
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 36 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c8 - Holcus-Juncus neutral grassland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1c - Artificial unvegetated unsealed surface
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

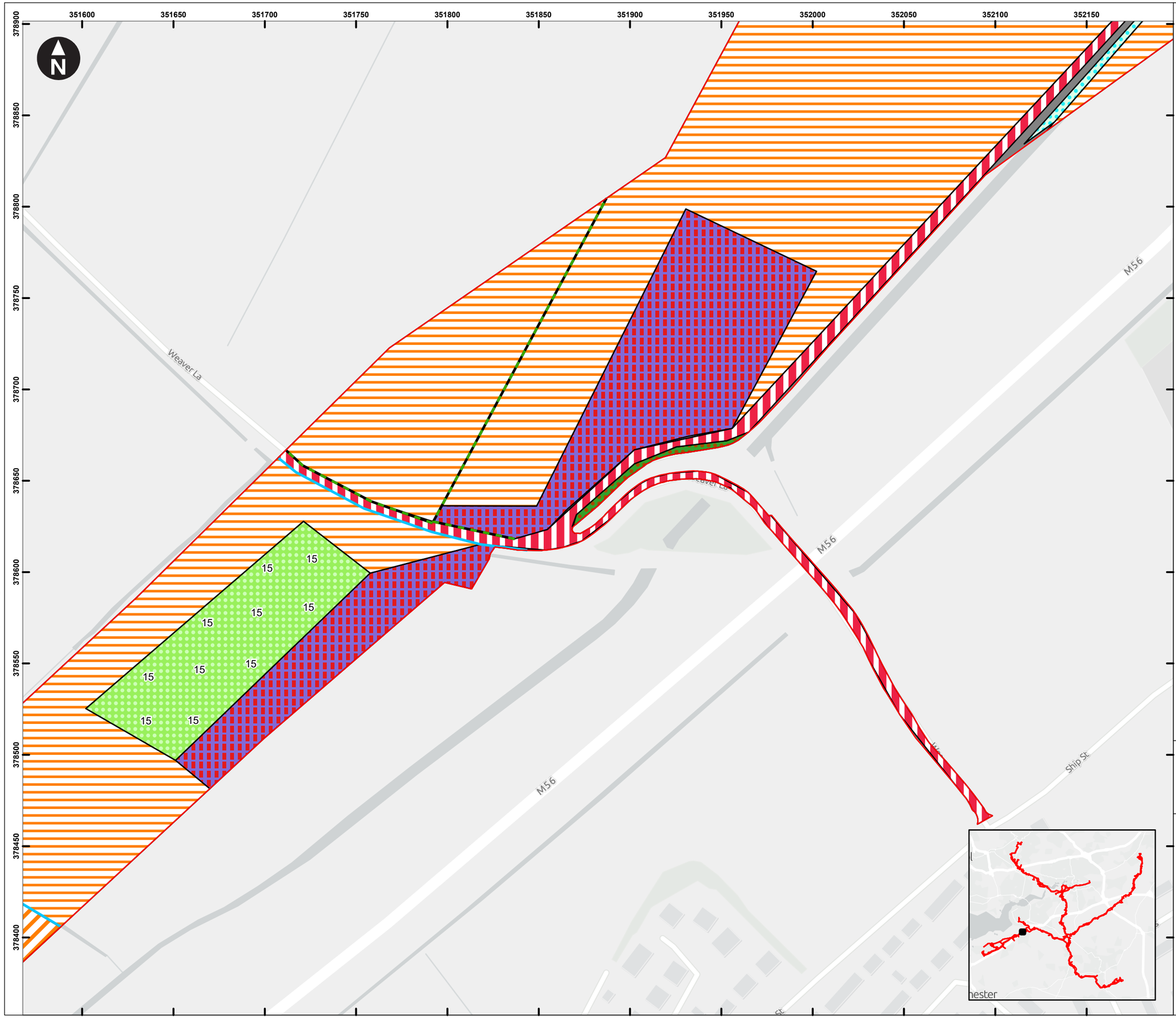
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 37 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c8 - Holcus-Juncus neutral grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1e - Canals
- w1g6 - Line of trees
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

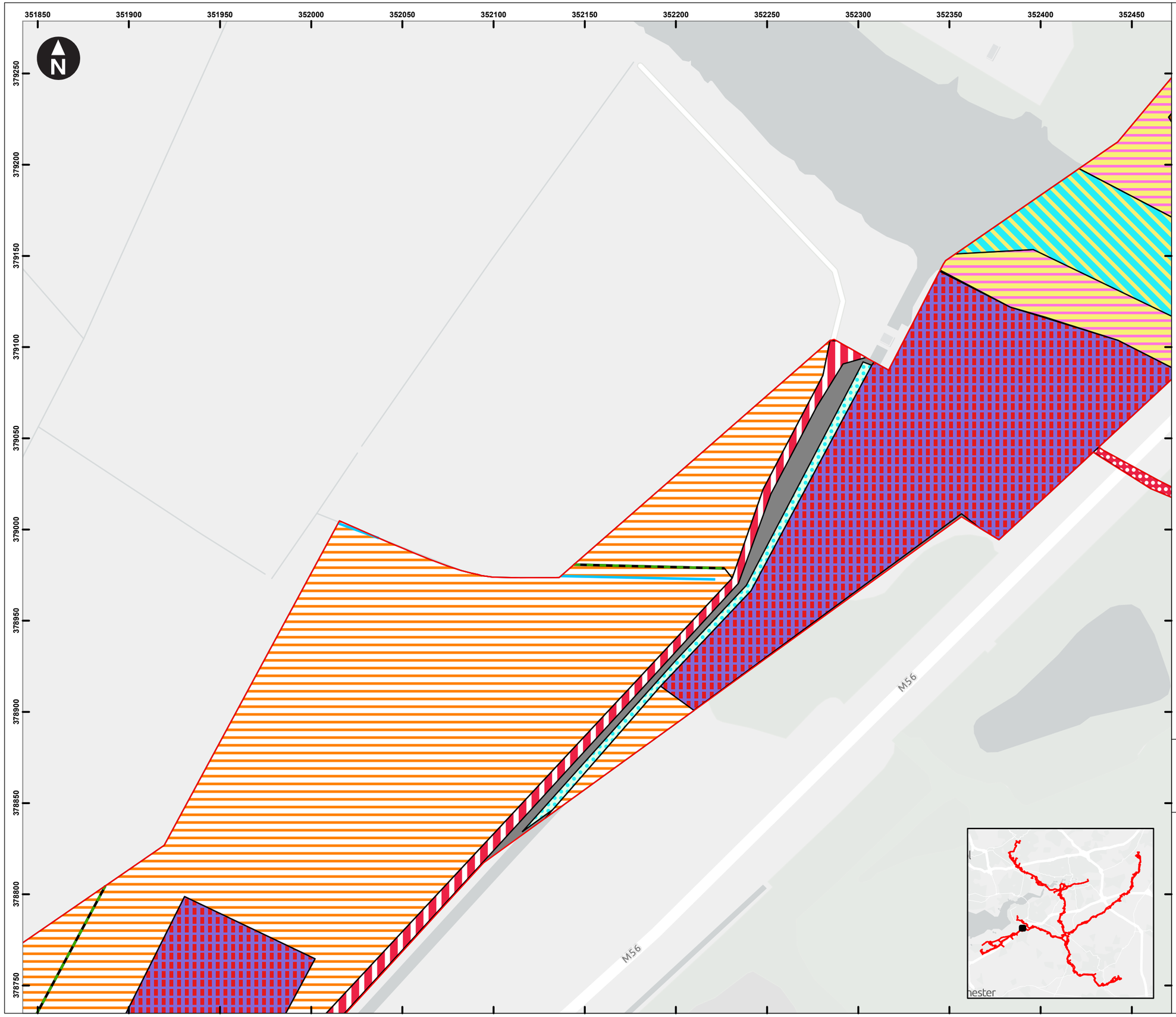
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 38 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- w1d - Wet woodland
- h3h - Mixed scrub
- f2e - Reedbeds
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- r2b - Other rivers and streams
- w1g6 - Line of trees
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

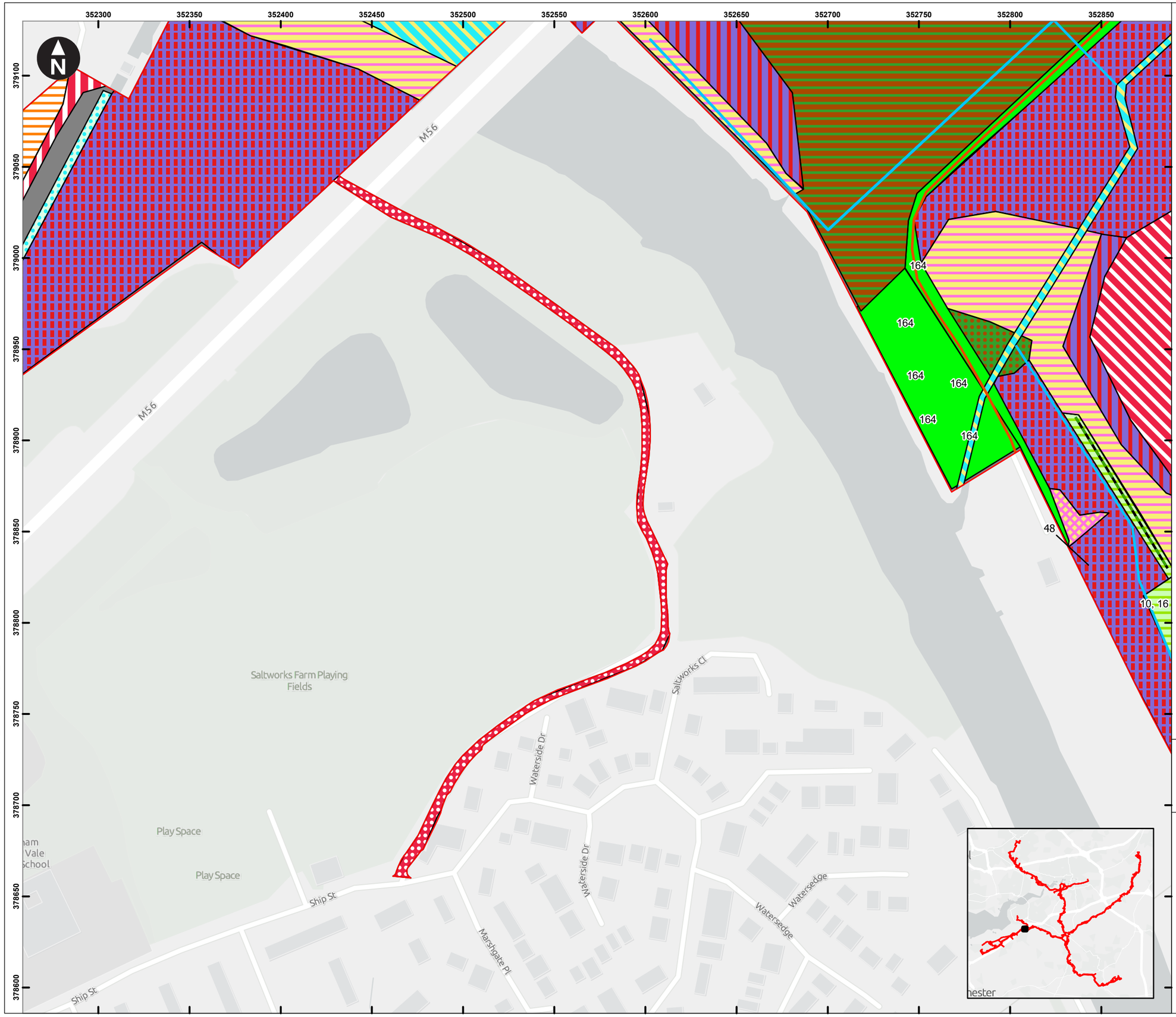
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 39 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- f2e - Reedbeds
- f2f - Other swamps
- c1c - Cereal crops
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- r2b - Other rivers and streams
- w1g6 - Line of trees
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 40 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

352250 352300 352350 352400 352450 352500 352550 352600 352650 352700 352750 352800 352850

379500 379450 379400 379350 379300 379250 379200 379150 379100 379050 379000

N

48 73 48 48 164

M56

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1d - Wet woodland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- f2e - Reedbeds
- f2f - Other swamps
- c1c - Cereal crops
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- r2b - Other rivers and streams
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

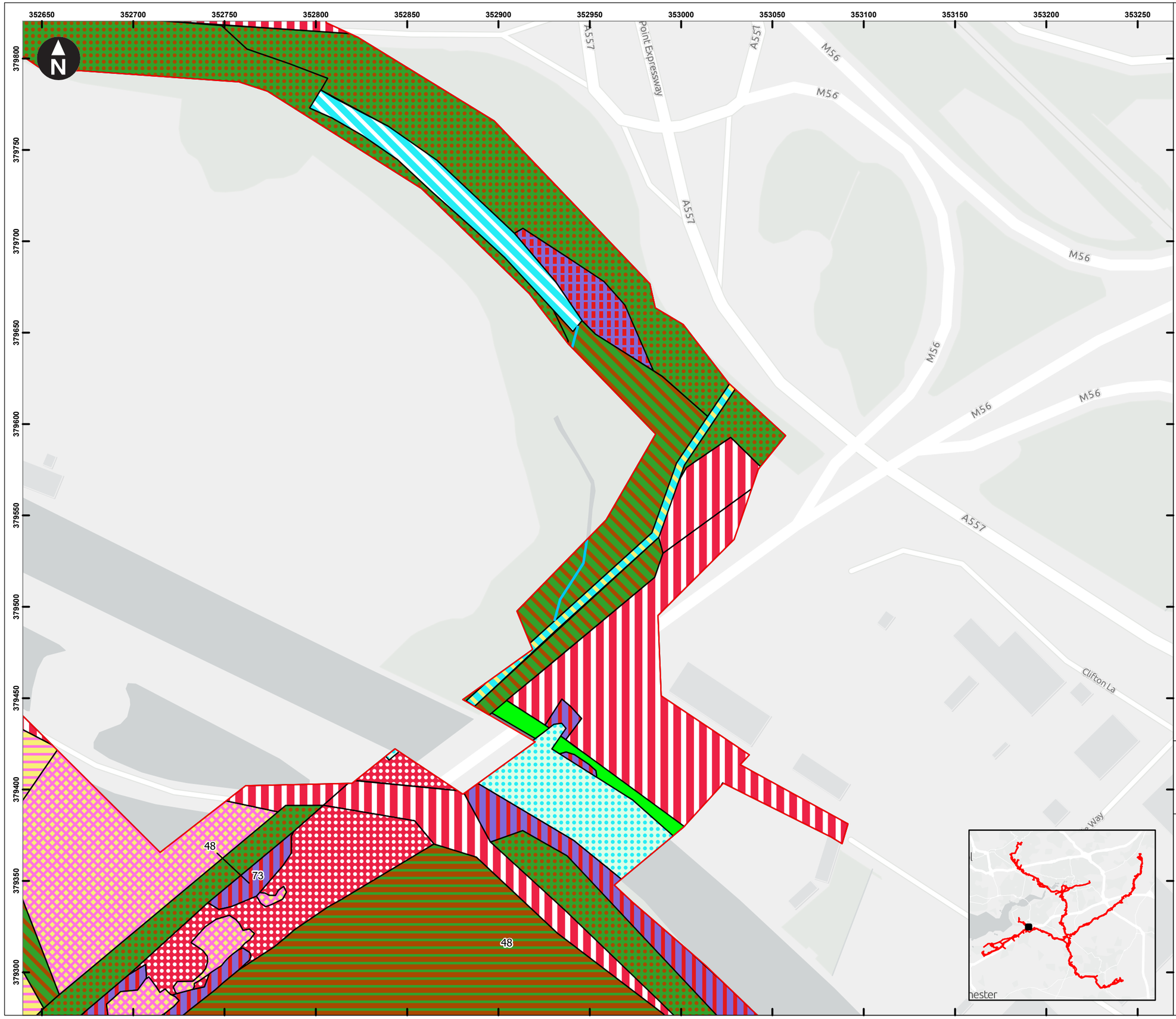
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 41 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1d - Wet woodland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- f2e - Reedbeds
- f2f - Other swamps
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r1e - Canals
- r2b - Other rivers and streams
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

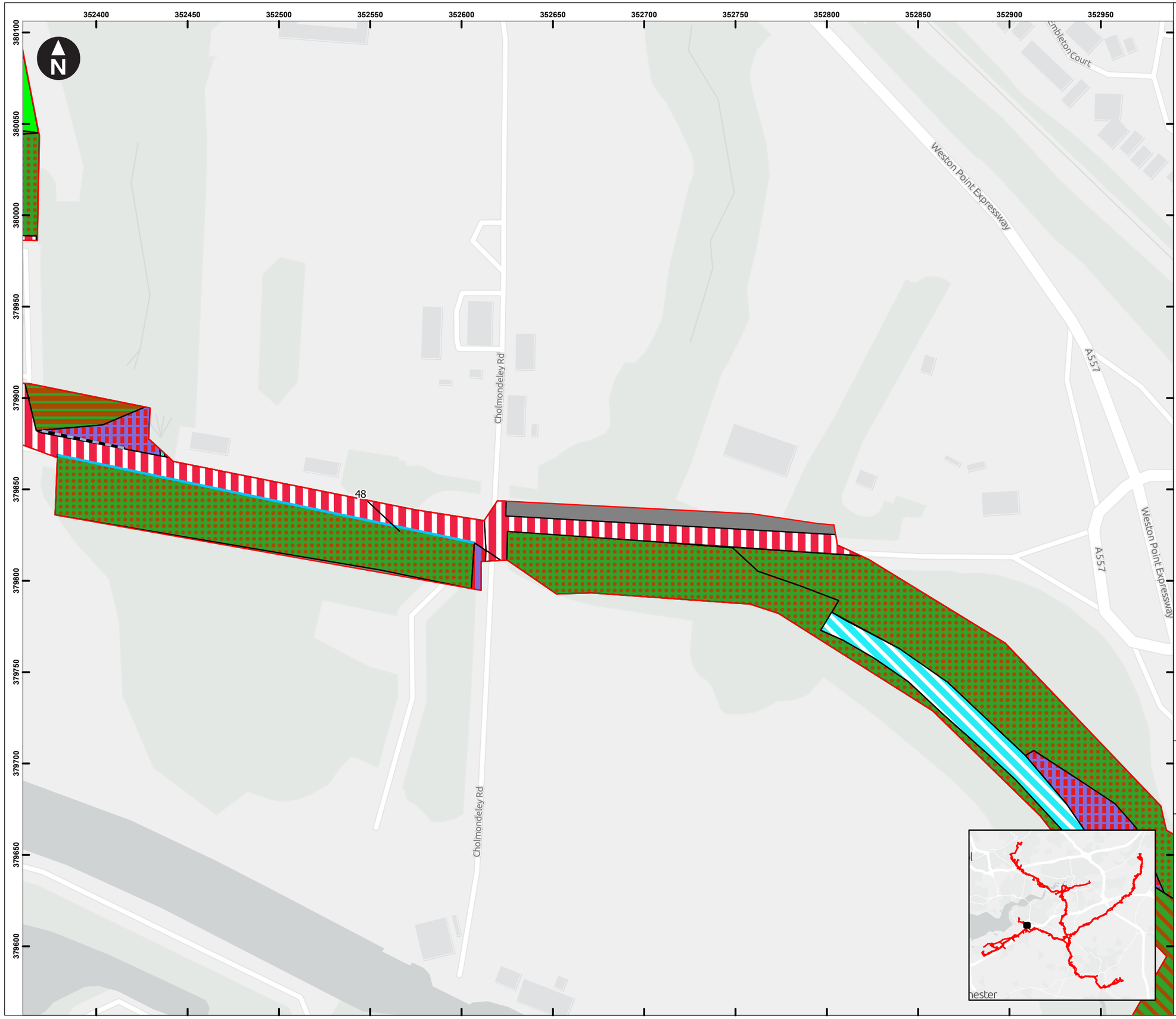
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 42 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1d - Wet woodland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 43 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 44 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- u1b - Developed land, sealed surface
- w1g6 - Line of trees

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

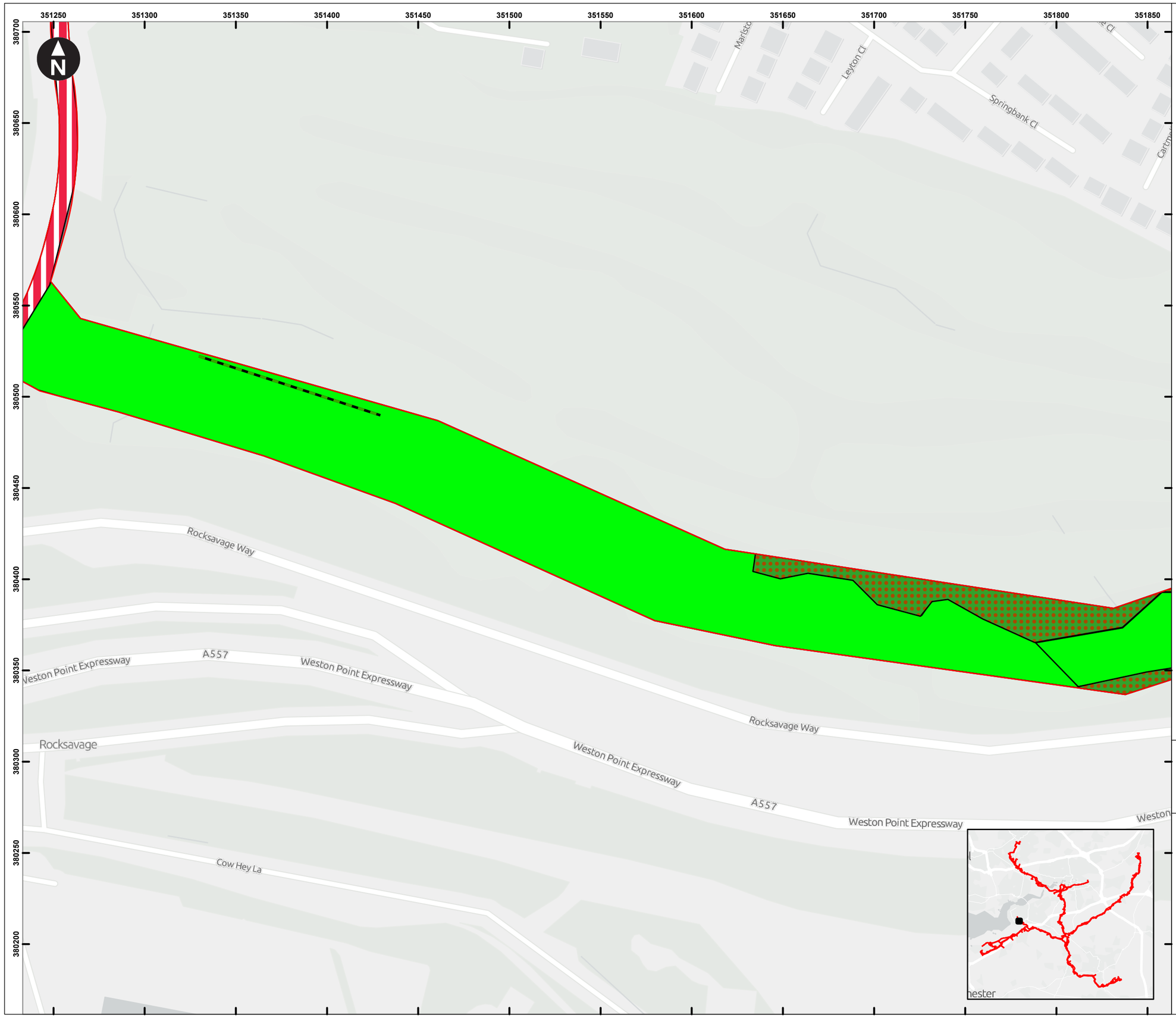
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 45 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- u1b - Developed land, sealed surface
- w1g6 - Line of trees

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 46 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- w1g6 - Line of trees

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

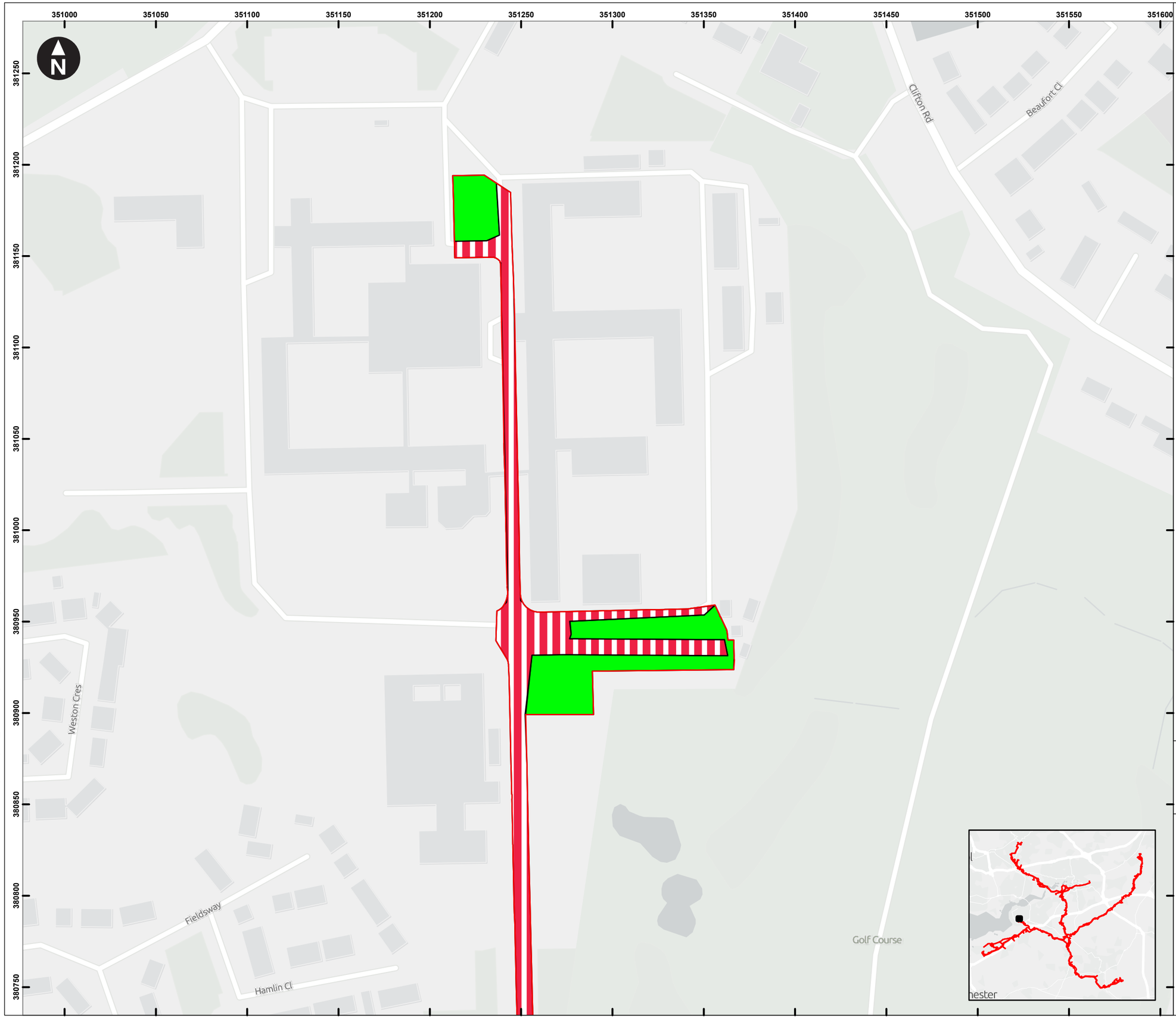
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 47 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

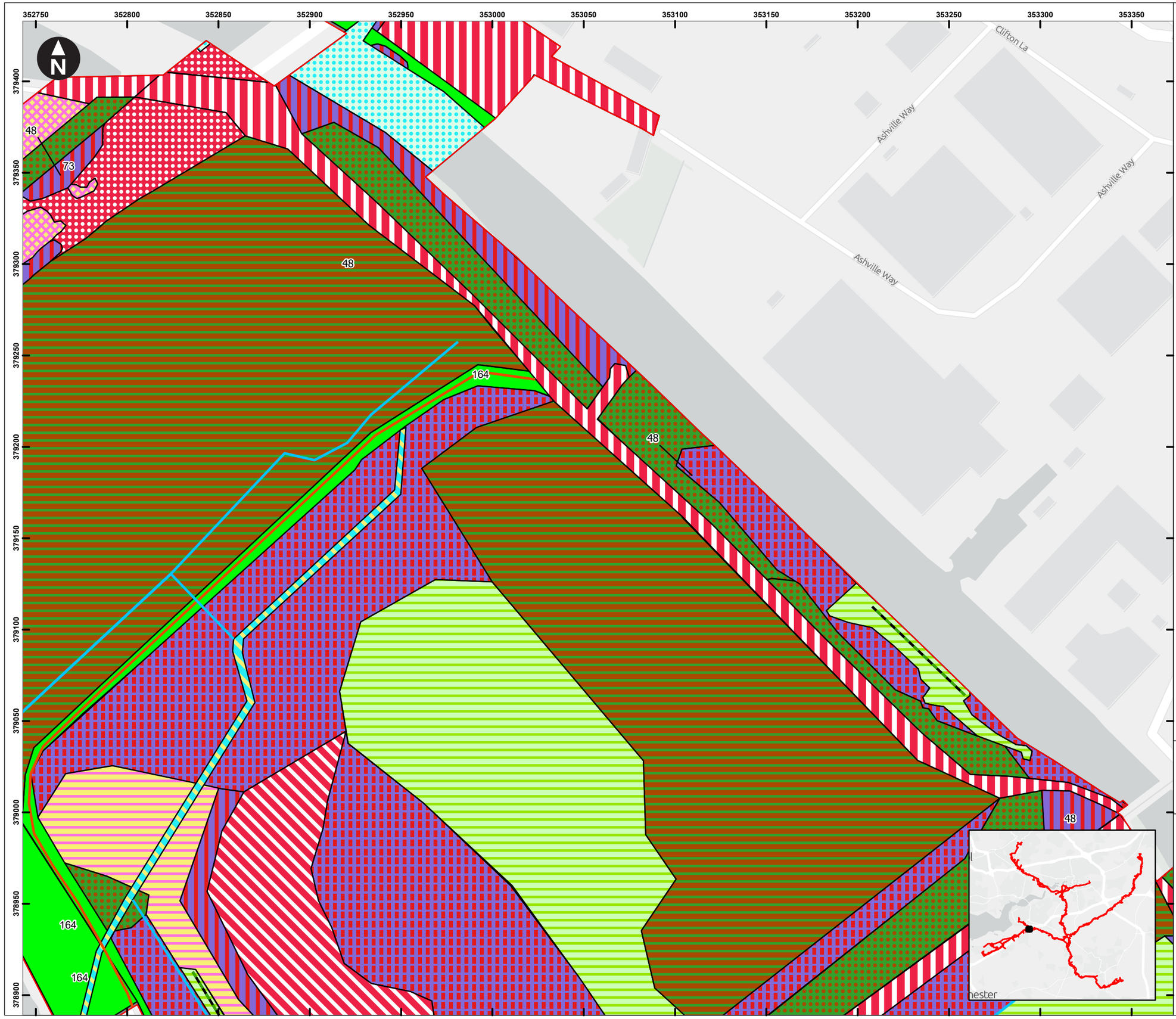
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 48 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- f2e - Reedbeds
- f2f - Other swamps
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- r2b - Other rivers and streams
- w1g6 - Line of trees
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

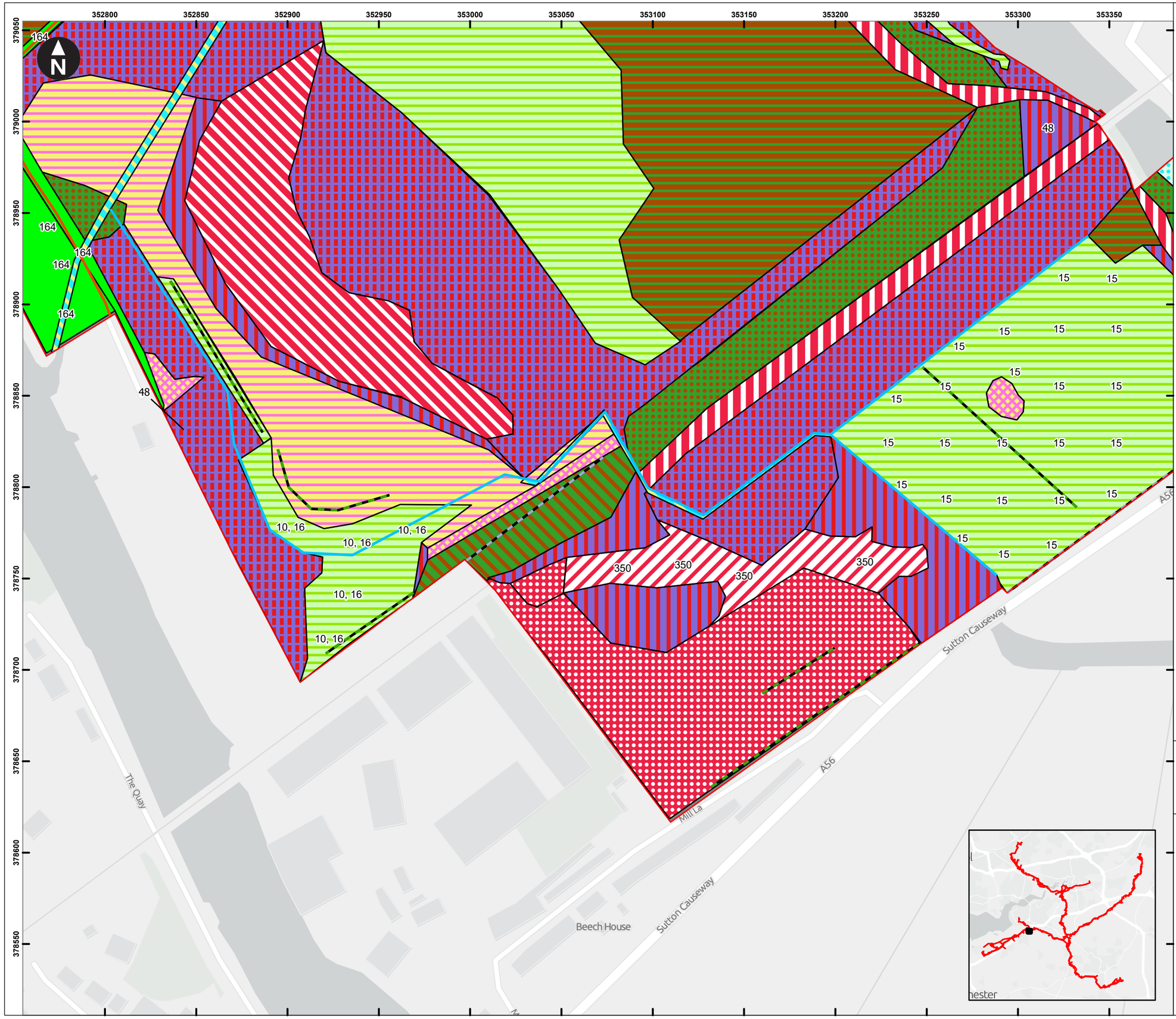
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 49 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1d - Wet woodland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- f2e - Reedbeds
- f2f - Other swamps
- u1 - Built-up areas and gardens
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 50 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

353250 353300 353350 353400 353450 353500 353550 353600 353650 353700 353750 353800

379200 379150 379100 379050 379000 378950 378900 378850 378800 378750 378700

N

Clifton Road

Clifton Road

A557

A56

A557

Meadowgate Farm

A56

A56

Sutton Causeway

48

16

15

350

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3 - Dense scrub
- h3d - Bramble scrub
- h3h - Mixed scrub
- f2e - Reedbeds
- f2f - Other swamps
- c1 - Arable and horticulture
- u1 - Built-up areas and gardens
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

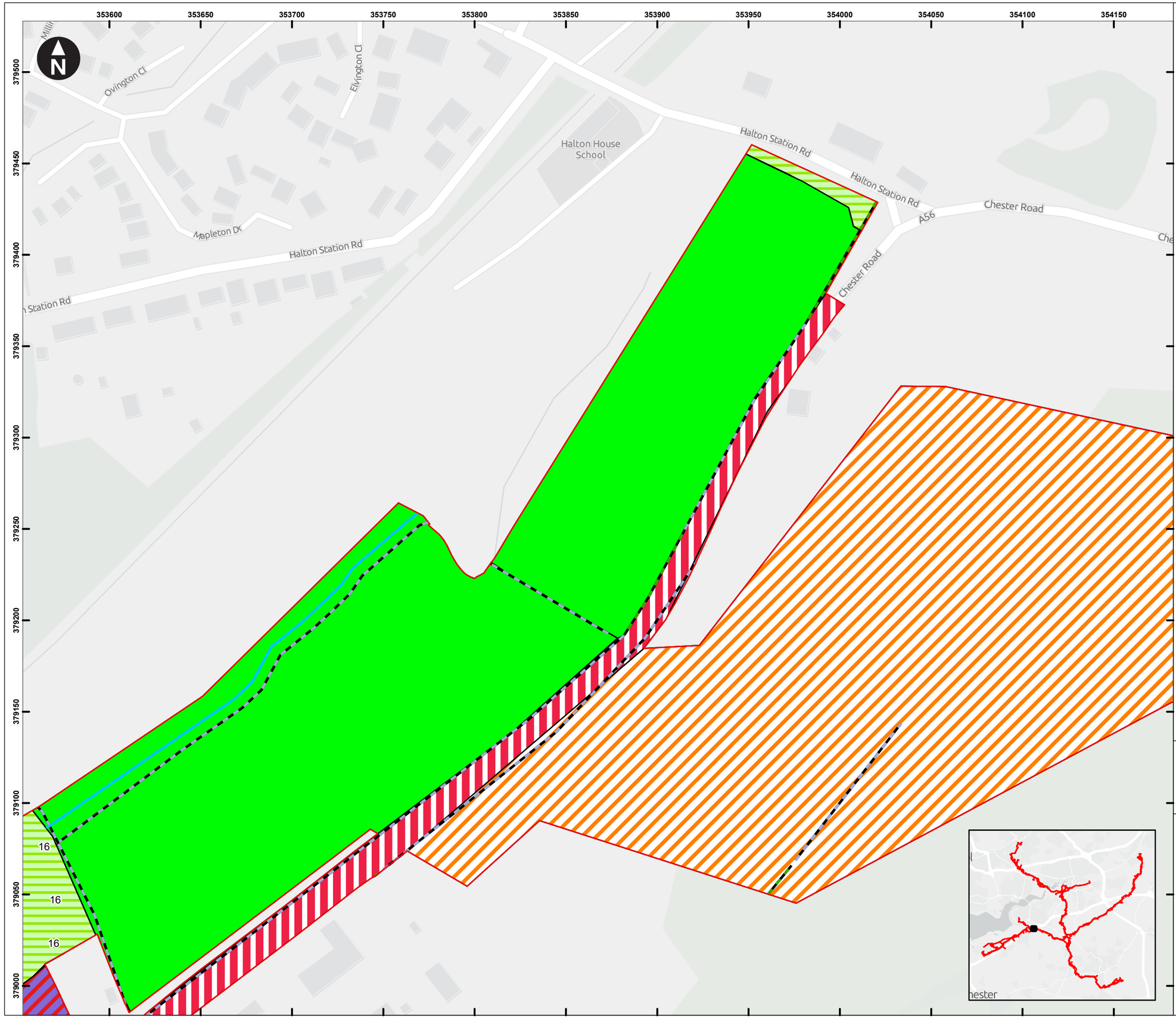
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 51 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3 - Dense scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

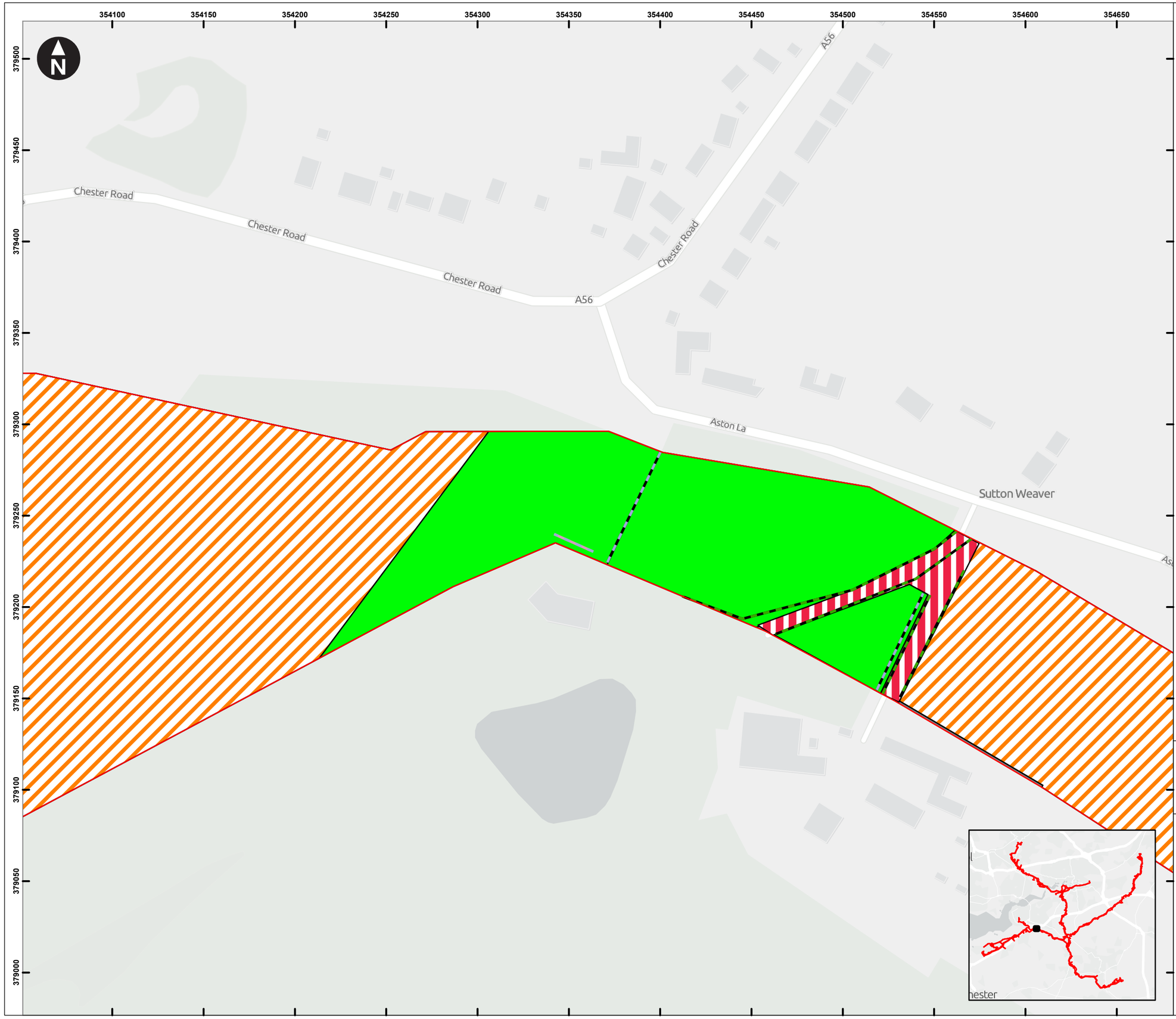
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 52 of 265

October 2024

C:\Users\UKJJC7776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC7776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- h2b - Other hedgerow

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 53 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

354550 354600 354650 354700 354750 354800 354850 354900 354950 355000 355050 355100 355150

379300 379250 379200 379150 379100 379050 379000 378950 378900 378850

N

Sutton Weaver

Aston La

Aston La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 54 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

355050 355100 355150 355200 355250 355300 355350 355400 355450 355500 355550 355600 355650

379050 379000 378950 378900 378850 378800 378750 378700 378650 378600 378550

N

Kidney Plantation

Aston La

nester

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

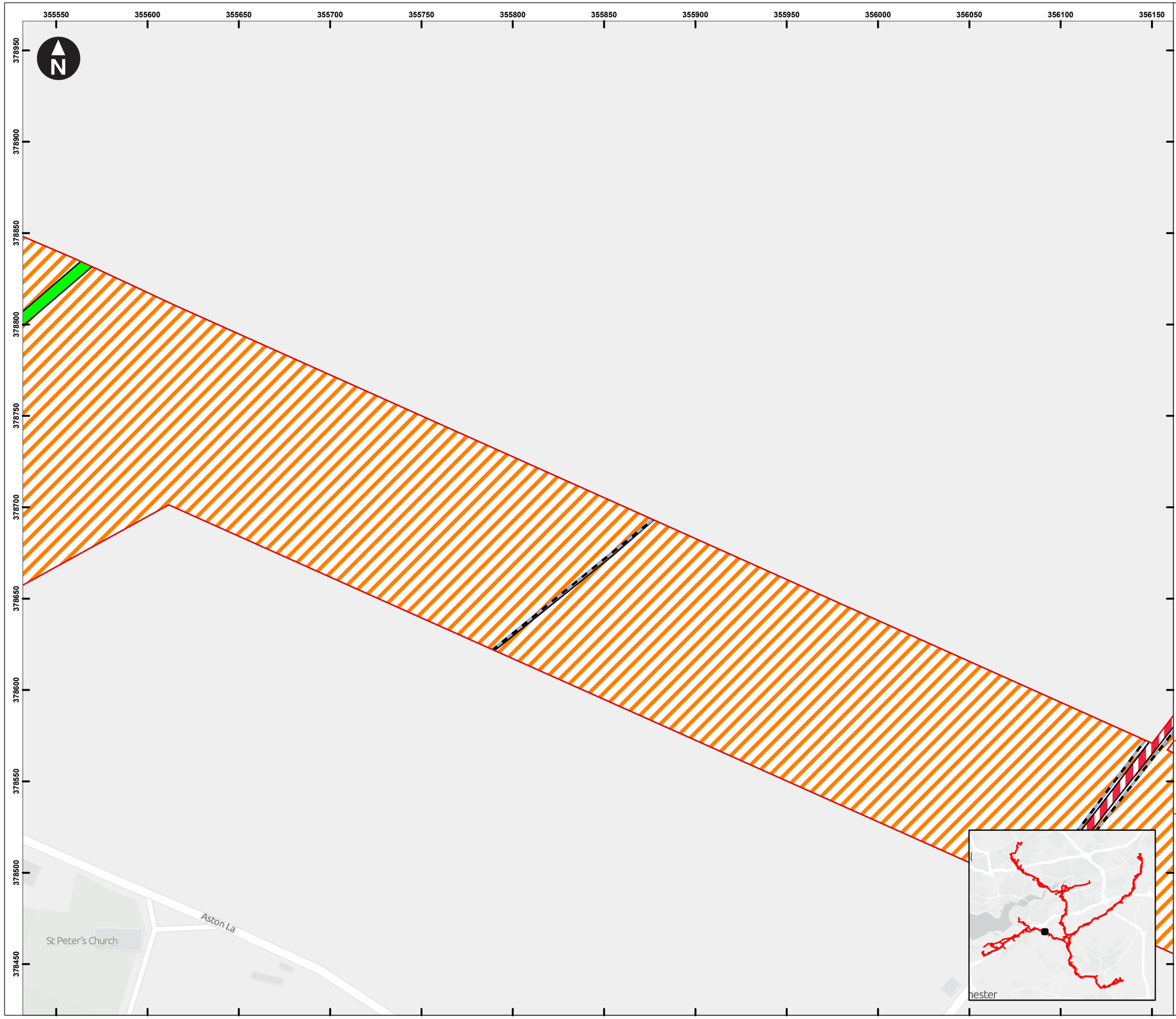
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 55 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

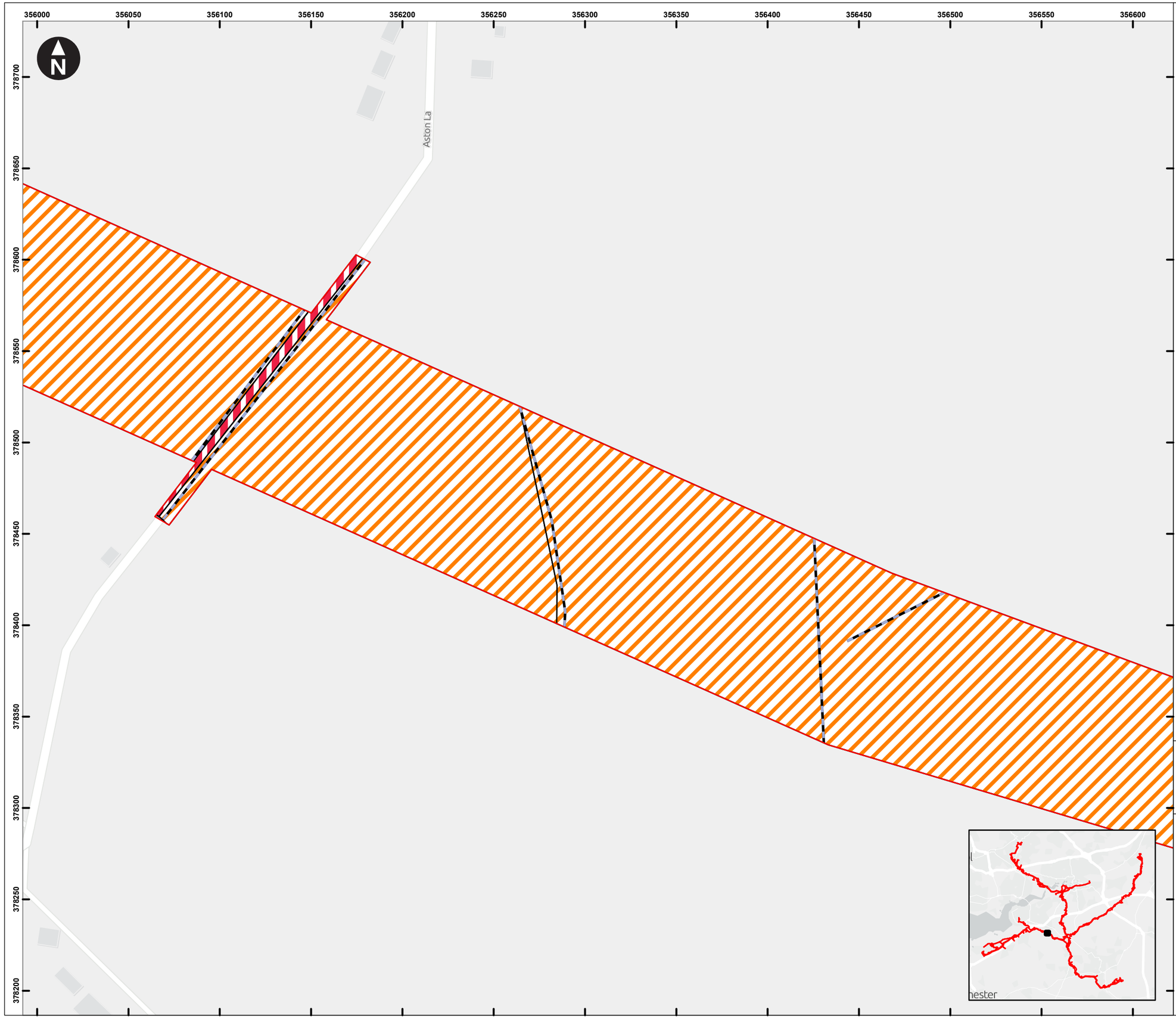
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 56 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

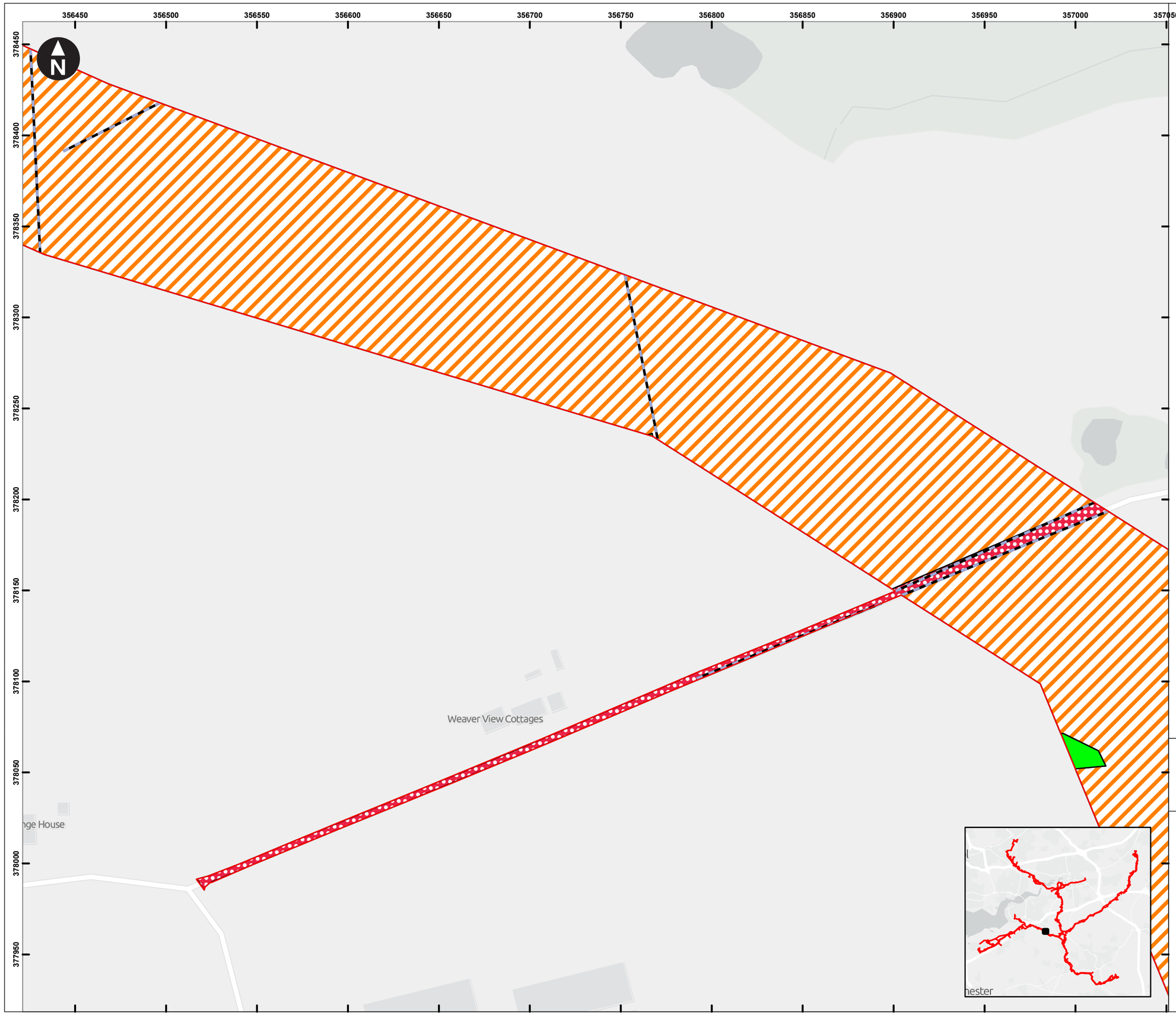
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 57 of 265

October 2024

C:\Users\UKJJC7776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC7776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

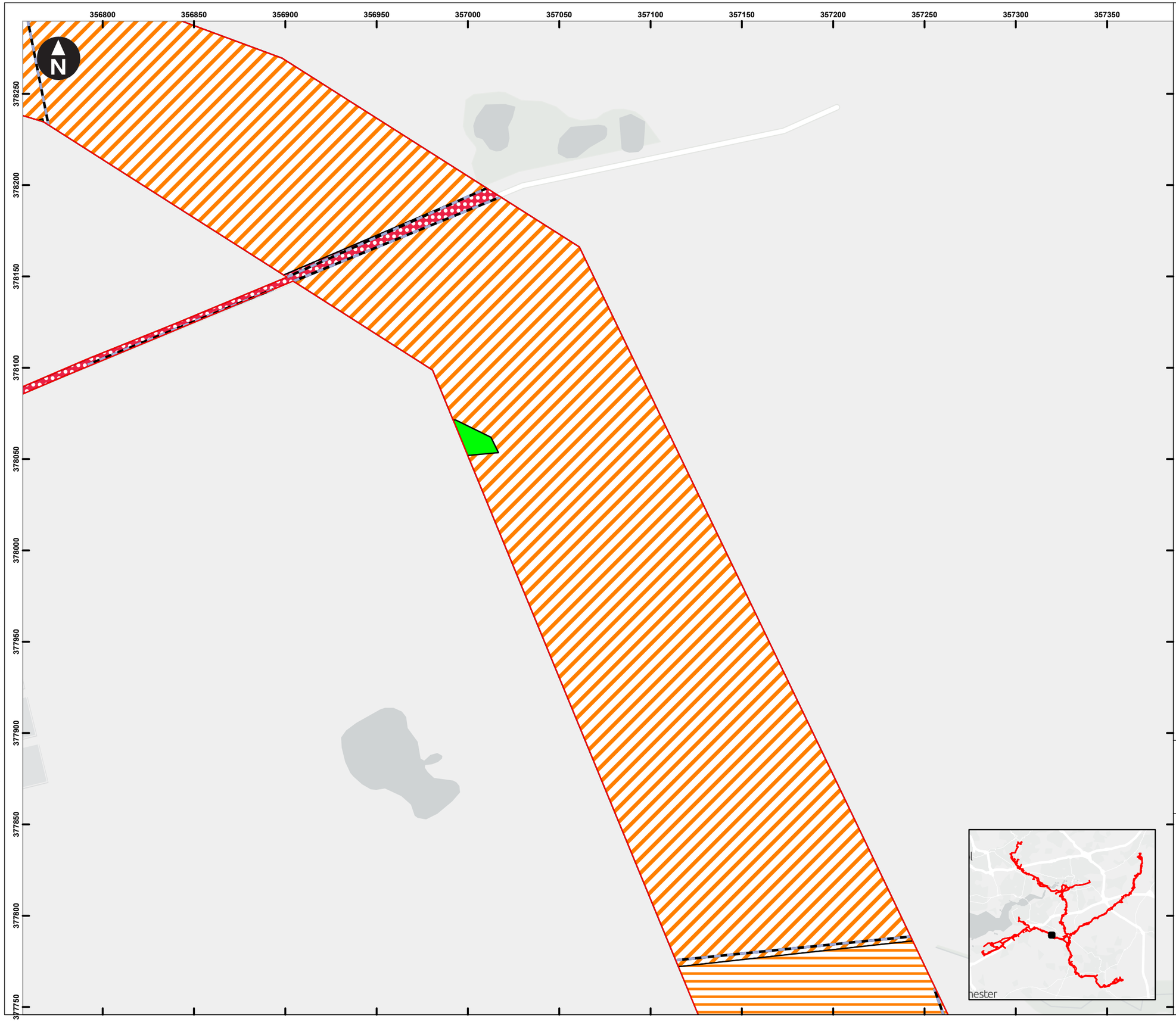
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 58 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 59 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

356950 357000 357050 357100 357150 357200 357250 357300 357350 357400 357450 357500 357550

377850 377800 377750 377700 377650 377600 377550 377500 377450 377400

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- c1 - Arable and horticulture
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

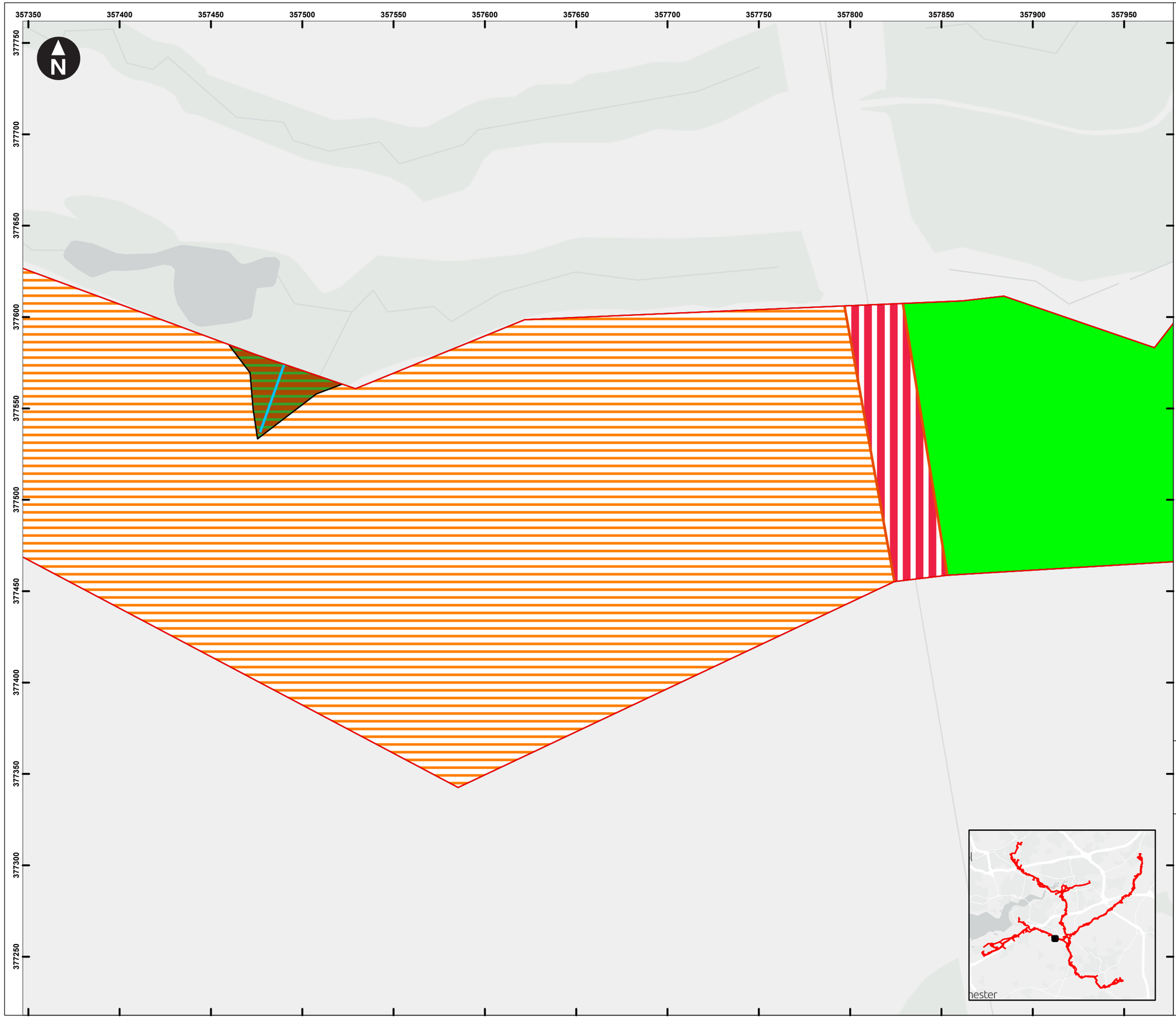
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 60 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 61 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

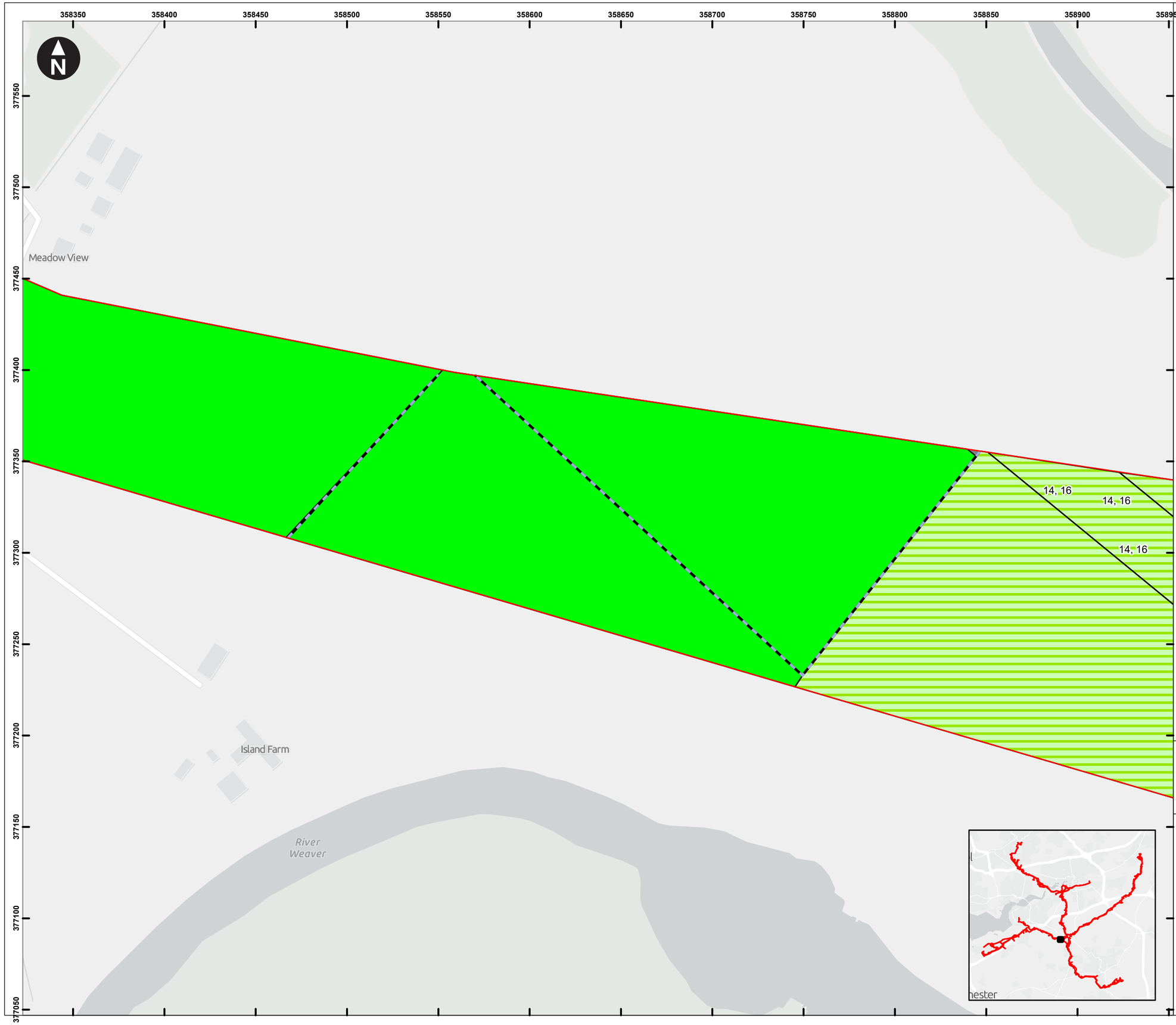
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 62 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

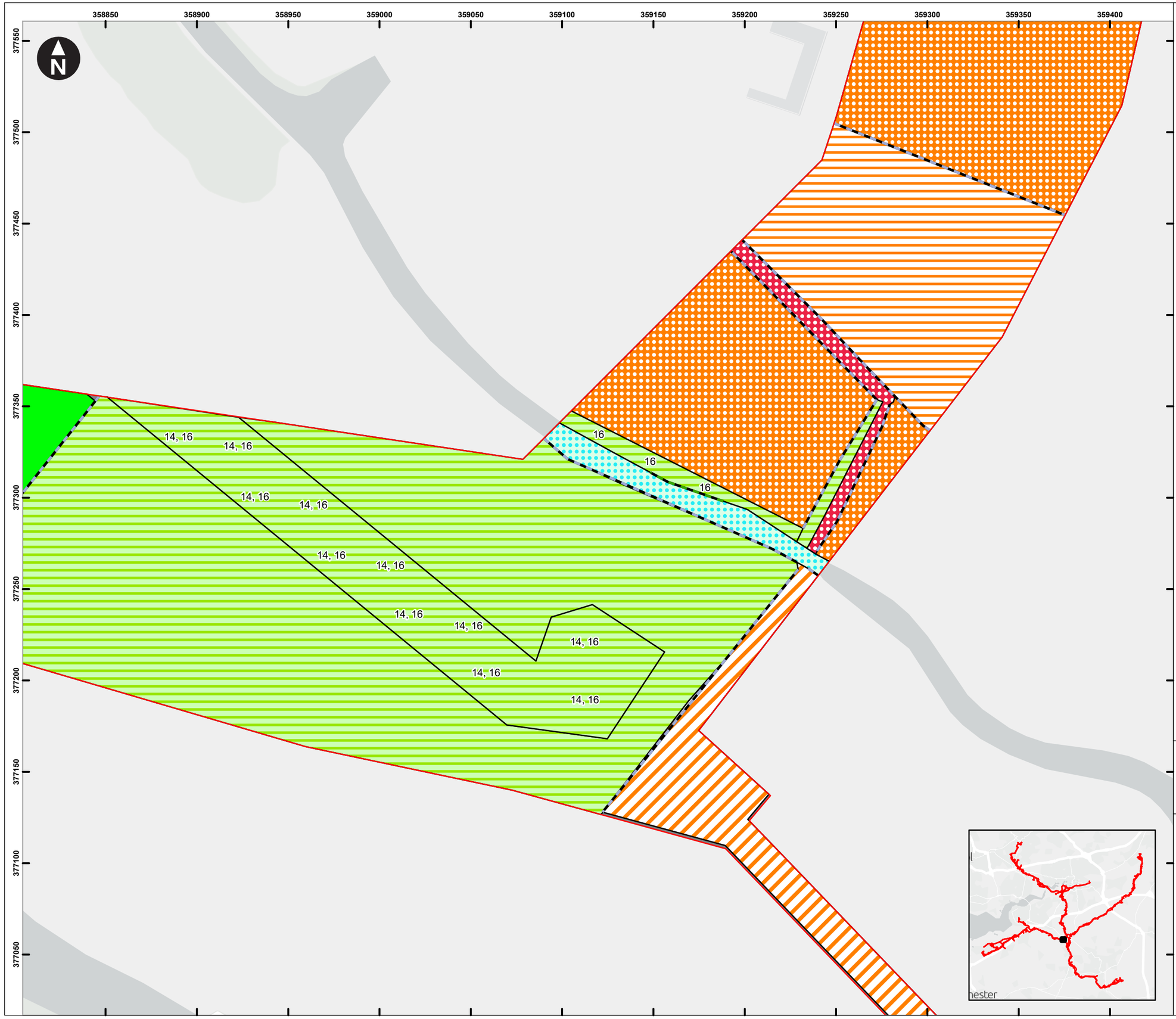
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 63 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 64 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359050 359100 359150 359200 359250 359300 359350 359400 359450 359500 359550 359600 359650

377950 377900 377850 377800 377750 377700 377650 377600 377550 377500 377450

N

Northwich Road

Dutton Hall Cottages

A533

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 65 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359500 359550 359600 359650 359700 359750 359800 359850 359900 359950 360000 360050 360100

378200 378150 378100 378050 378000 377950 377900 377850 377800 377750 377700

16 16 16 16 16 16 16 16 16

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 66 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359750 359800 359850 359900 359950 360000 360050 360100 360150 360200 360250 360300 360350

378400 378350 378300 378250 378200 378150 378100 378050 378000 377950 377900

N

Newholme Farm

16

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 67 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359250 359300 359350 359400 359450 359500 359550 359600 359650 359700 359750 359800 359850

378600 378550 378500 378450 378400 378350 378300 378250 378200 378150 378100

N

Seven Acre Wood

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 68 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359150 359200 359250 359300 359350 359400 359450 359500 359550 359600 359650 359700

379000 378950 378900 378850 378800 378750 378700 378650 378600 378550 378500

N

Wood

Seven Acre Wood

hester

Key

- Preliminary Order Limits
- g4 - Modified grassland
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

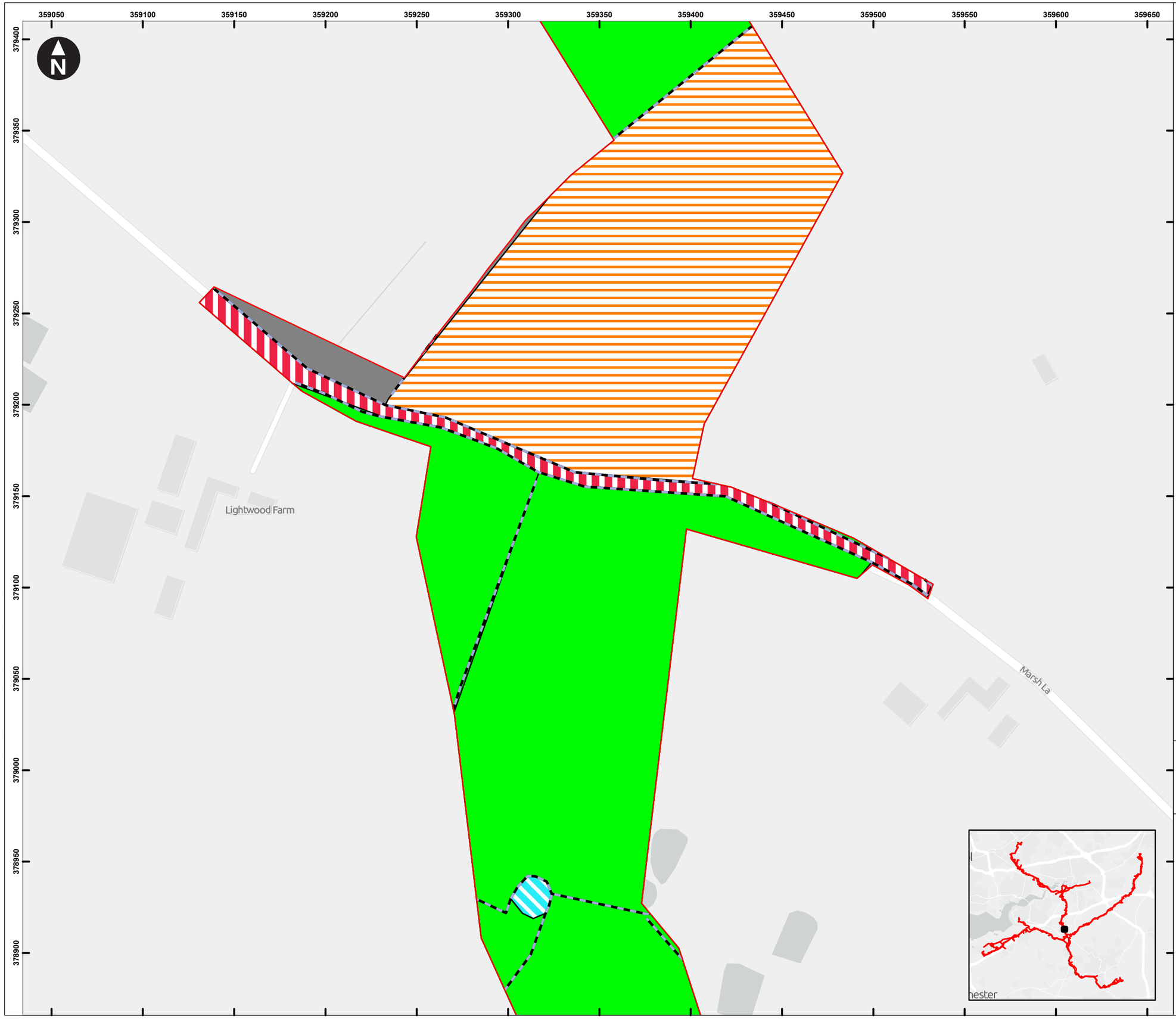
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 69 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 70 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359000 359050 359100 359150 359200 359250 359300 359350 359400 359450 359500 359550 359600

379750 379700 379650 379600 379550 379500 379450 379400 379350 379300

N

Meadow Farm

Marsh La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 71 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 72 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

358700 358750 358800 358850 358900 358950 359000 359050 359100 359150 359200 359250 359300

380500 380450 380400 380350 380300 380250 380200 380150 380100 380050 380000

N

Millennium Wood

Higher La

Pear Tree Farm

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

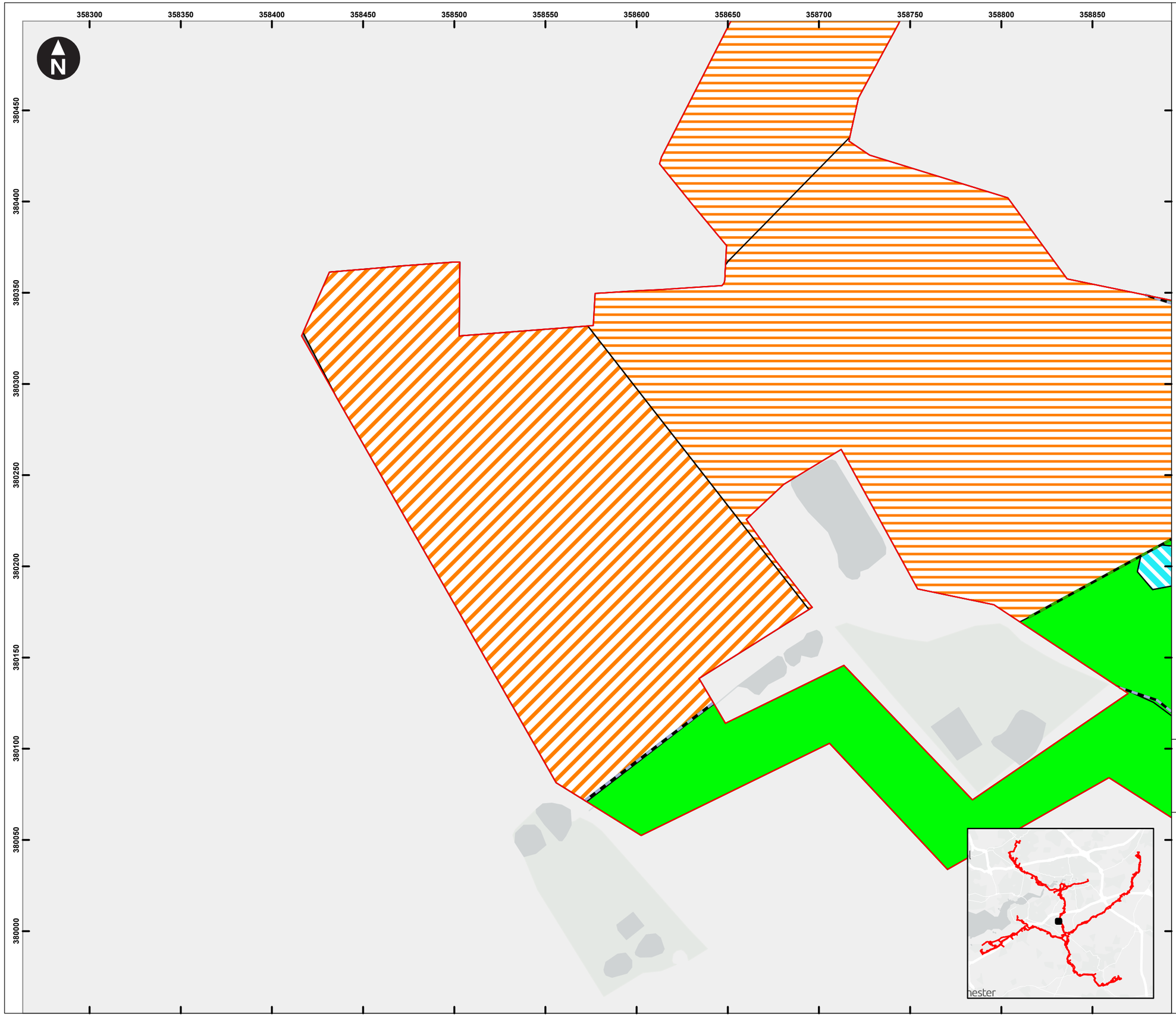
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 73 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 74 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

358450 358500 358550 358600 358650 358700 358750 358800 358850 358900 358950 359000 359050

380850 380800 380750 380700 380650 380600 380550 380500 380450 380400 380350

N

Morphany La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

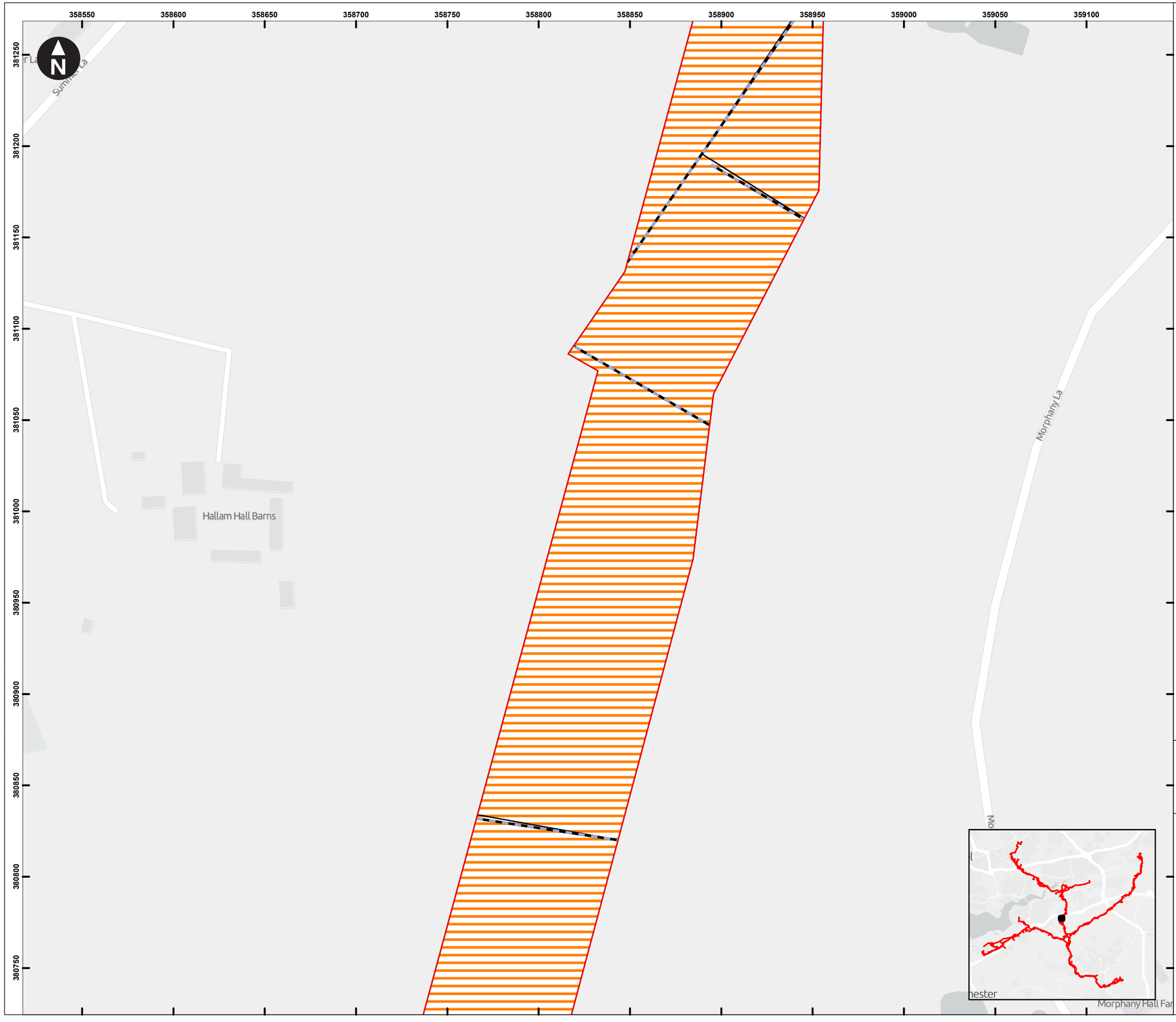
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 75 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

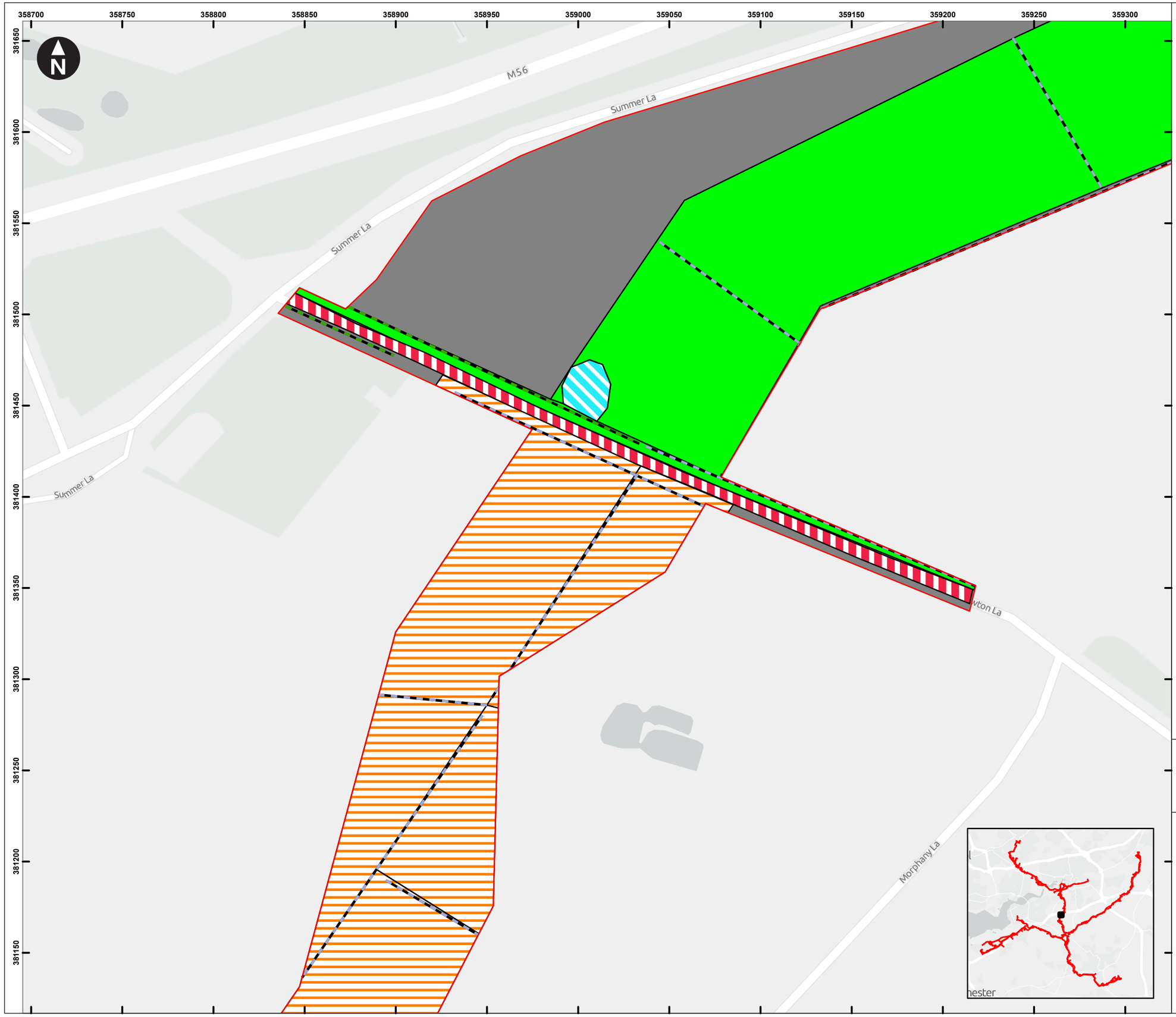
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 76 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

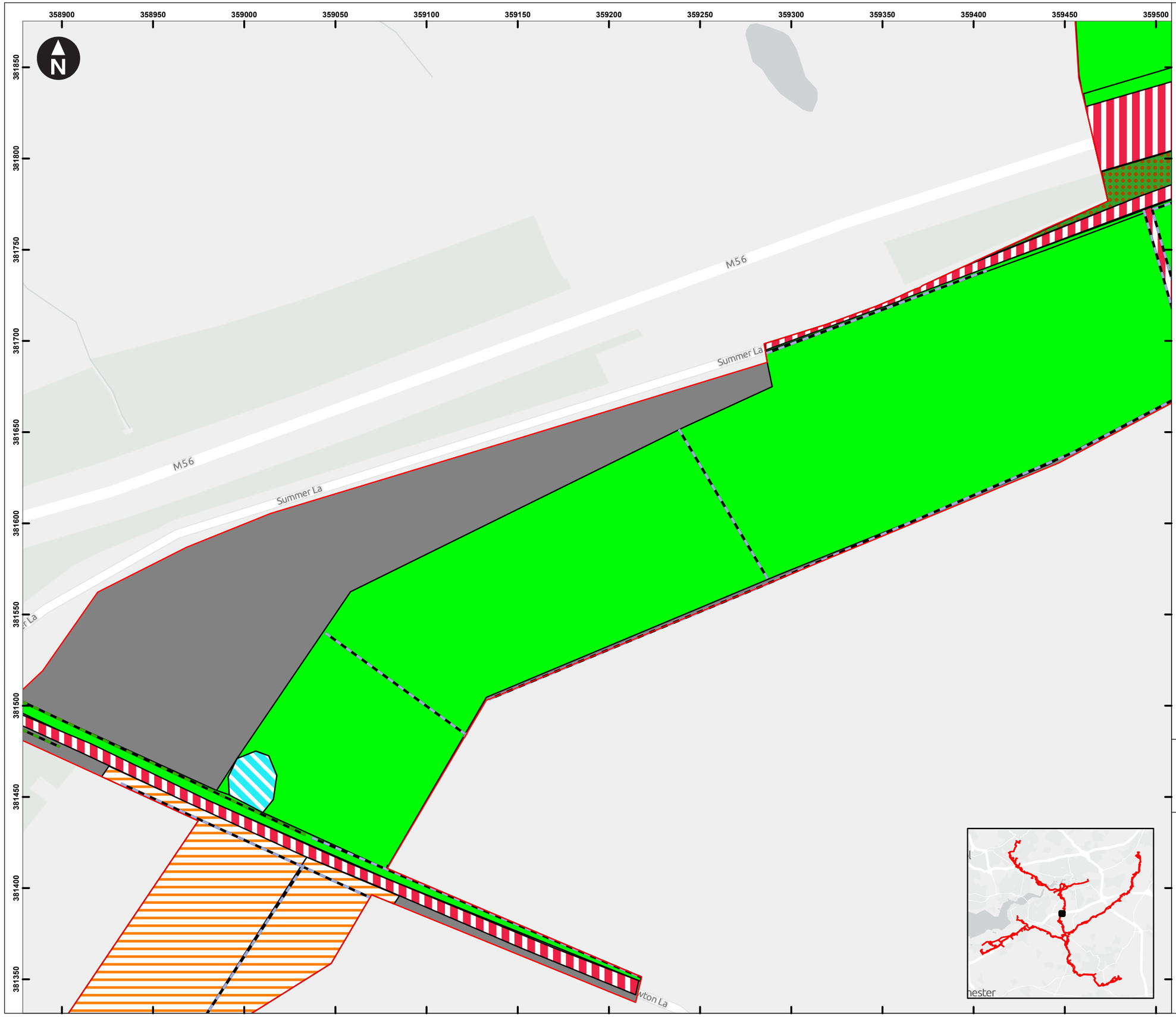
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 77 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 78 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359350 359400 359450 359500 359550 359600 359650 359700 359750 359800 359850 359900

382050 382000 381950 381900 381850 381800 381750 381700 381650 381600

N

Sankey La

M56

M56

Summer La

Owl's Nest Wood

hester

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 79 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359300 359350 359400 359450 359500 359550 359600 359650 359700 359750 359800 359850 359900

382450 382400 382350 382300 382250 382200 382150 382100 382050 382000 381950

N

Hatton

B5356

Hatton

Sankey La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 80 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359250 359300 359350 359400 359450 359500 359550 359600 359650 359700 359750 359800 359850

382800 382750 382700 382650 382600 382550 382500 382450 382400 382350 382300

St Elphin's View

B5356

Warrington Rd

B5356

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

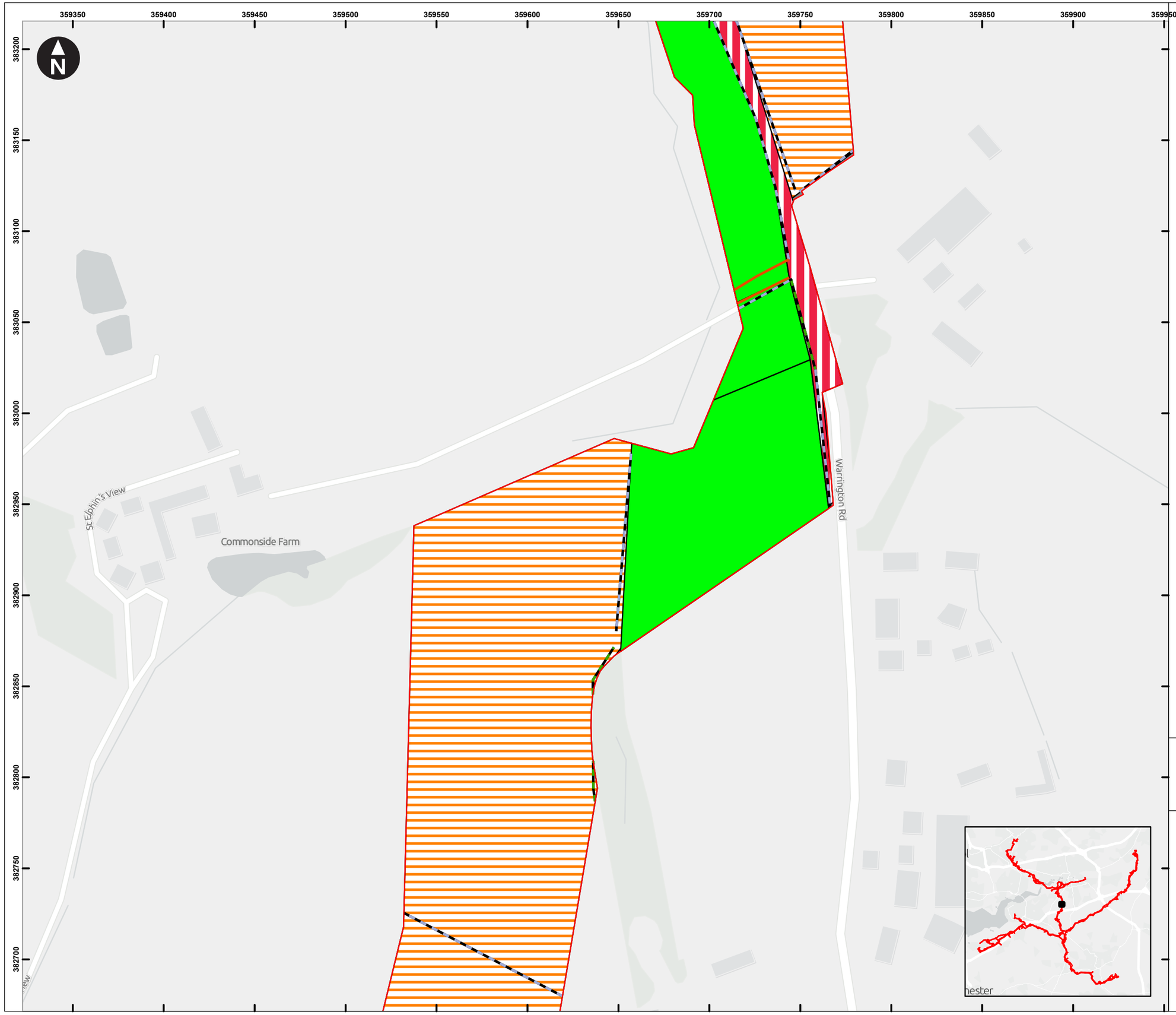
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 81 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

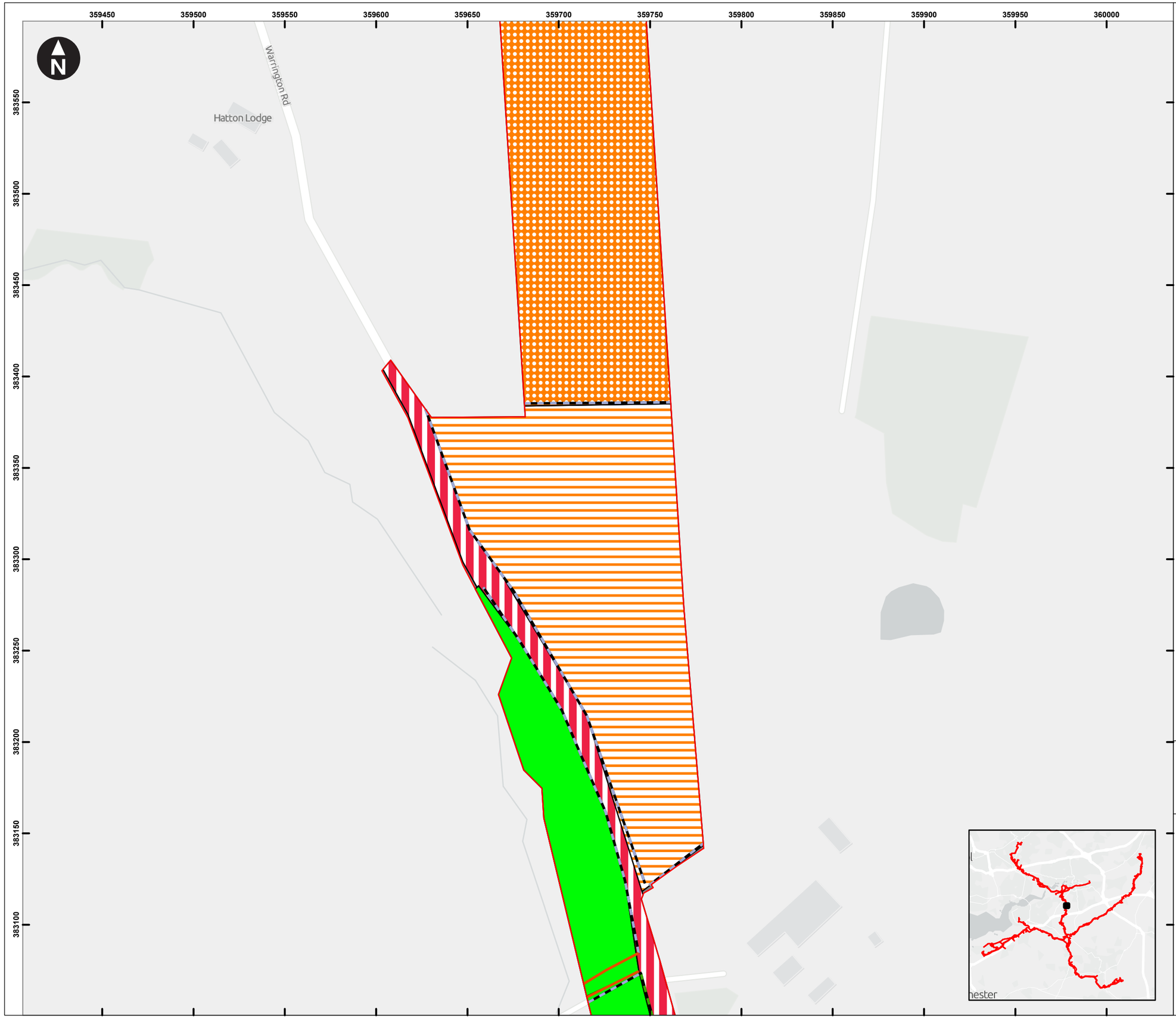
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 82 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 83 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359400 359450 359500 359550 359600 359650 359700 359750 359800 359850 359900 359950 360000

383950 383900 383850 383800 383750 383700 383650 383600 383550 383500 383450

N

Warrington Rd

Warrington Rd

Hatton Lodge

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 84 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359300 359350 359400 359450 359500 359550 359600 359650 359700 359750 359800 359850 359900

384300 384250 384200 384150 384100 384050 384000 383950 383900 383850 383800

N

Park La

Park La

New Plantation

Warrington Rd

Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 85 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359050 359100 359150 359200 359250 359300 359350 359400 359450 359500 359550 359600

384550 384500 384450 384400 384350 384300 384250 384200 384150 384100

N

Underbridge

Chester

A56

Chester Road

Park La

Allotments

Warrington Rd

Park La

48

48

48

hester

Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

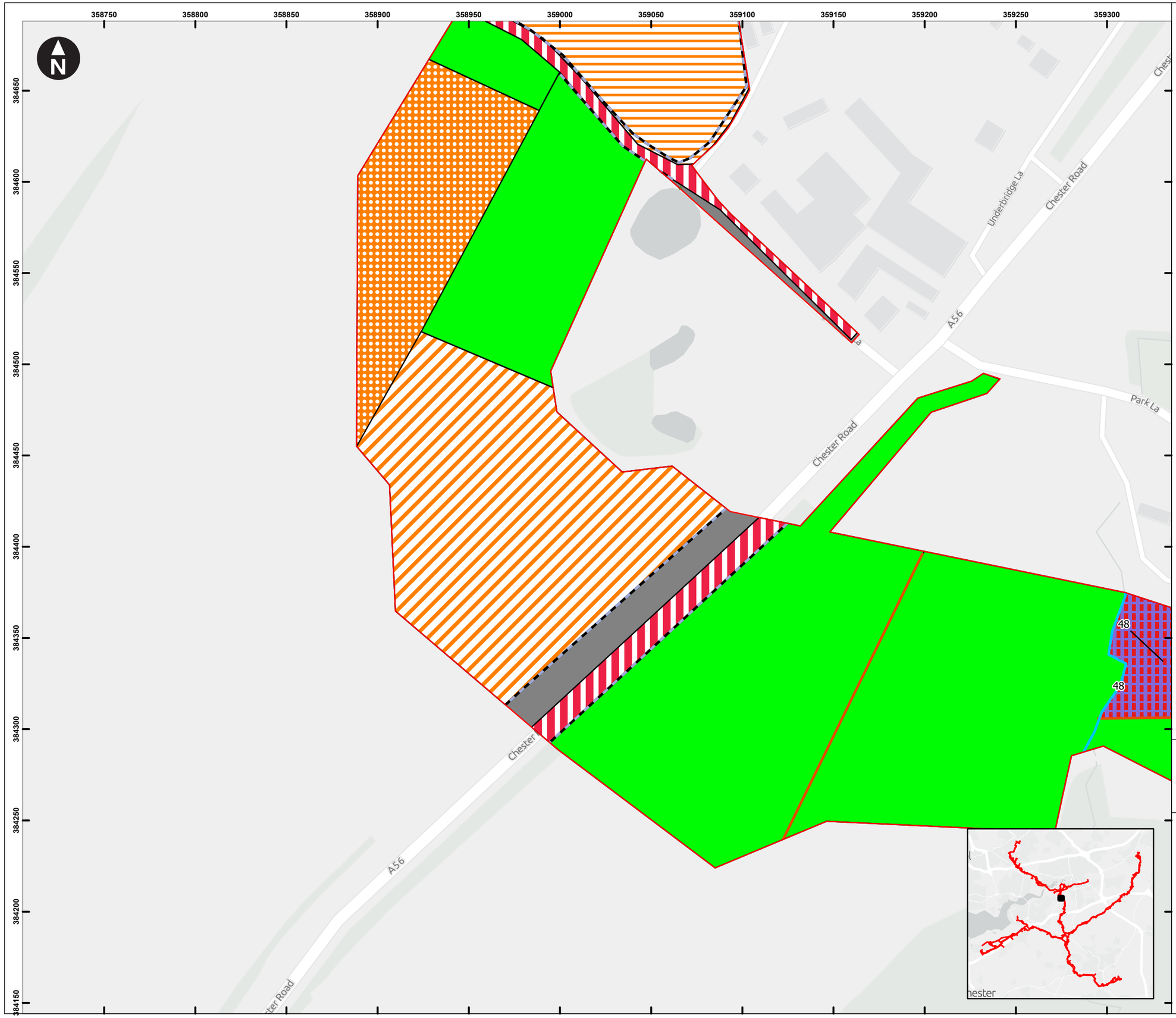
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 86 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 87 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- c1c - Cereal crops
- c1d - Non-cereal crops
- c1f - Horticulture
- u1b - Developed land, sealed surface
- r1e - Canals
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

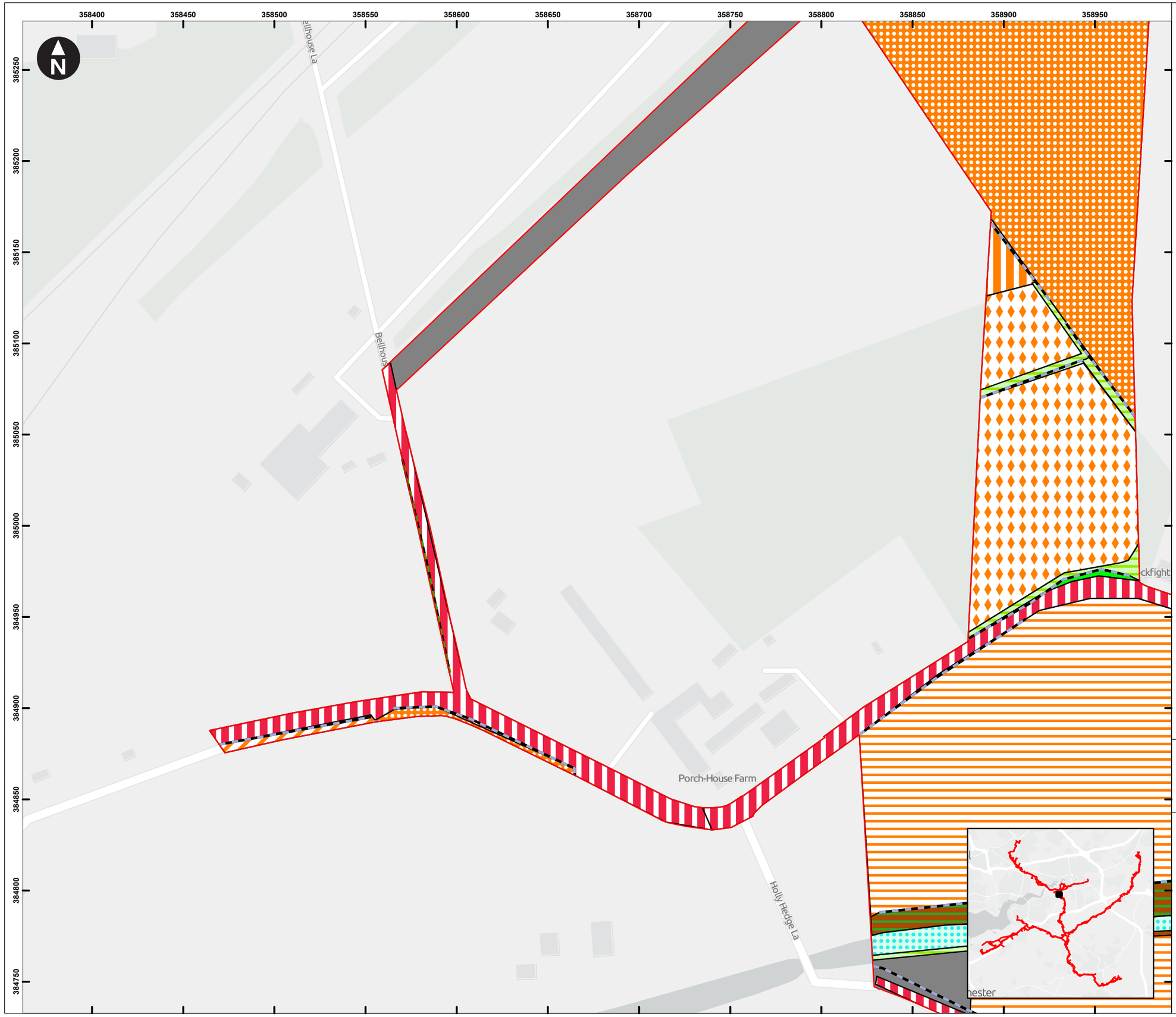
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 88 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- c1f - Horticulture
- u1b - Developed land, sealed surface
- r1e - Canals
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 89 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

358600 358650 358700 358750 358800 358850 358900 358950 359000 359050 359100 359150

385400 385350 385300 385250 385200 385150 385100 385050 385000 384950 384900

N

Mill La

Mill La

ckfight Cottages

nester

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- c1f - Horticulture
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

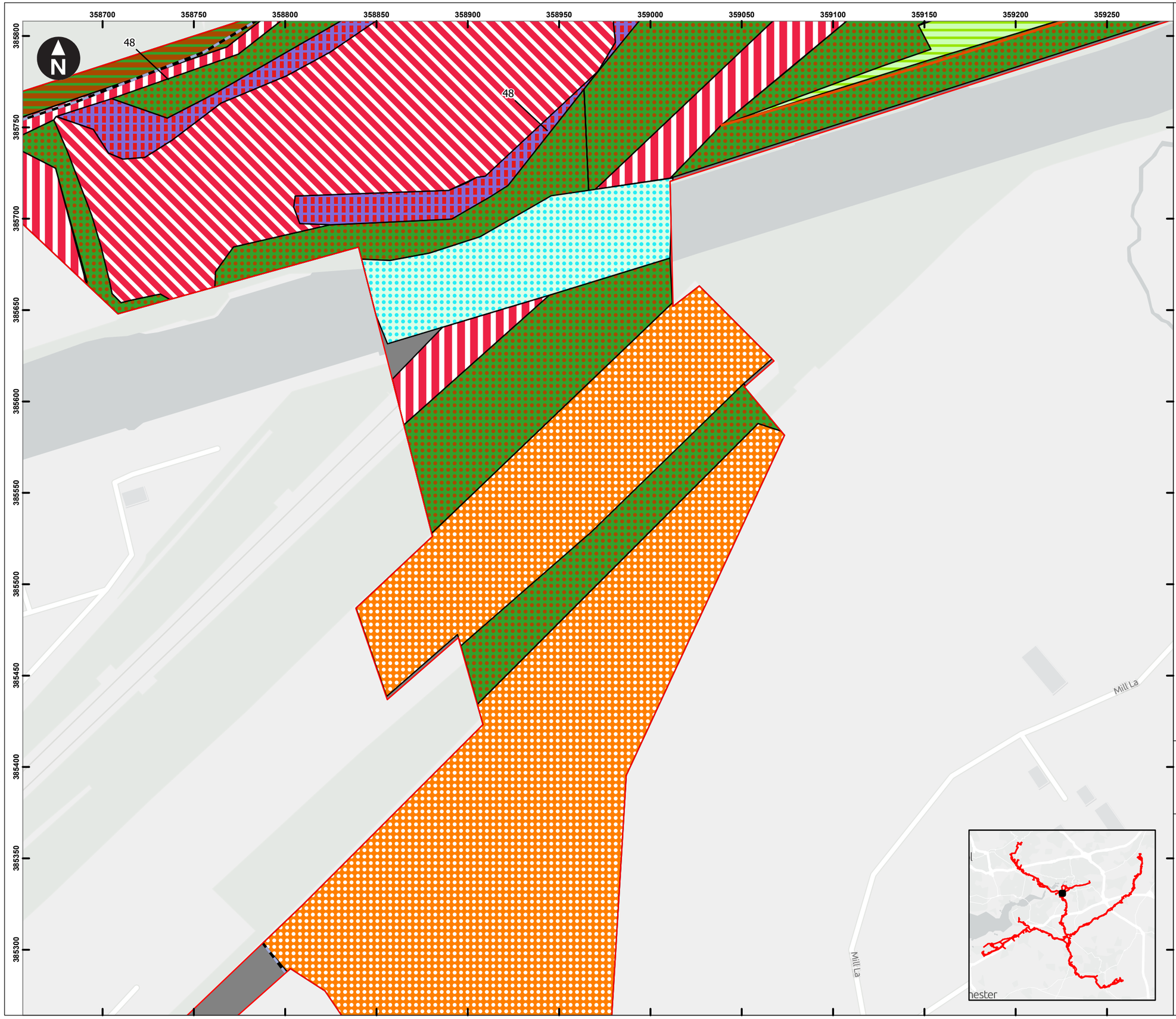
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 90 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- c1d - Non-cereal crops
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- r1e - Canals
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

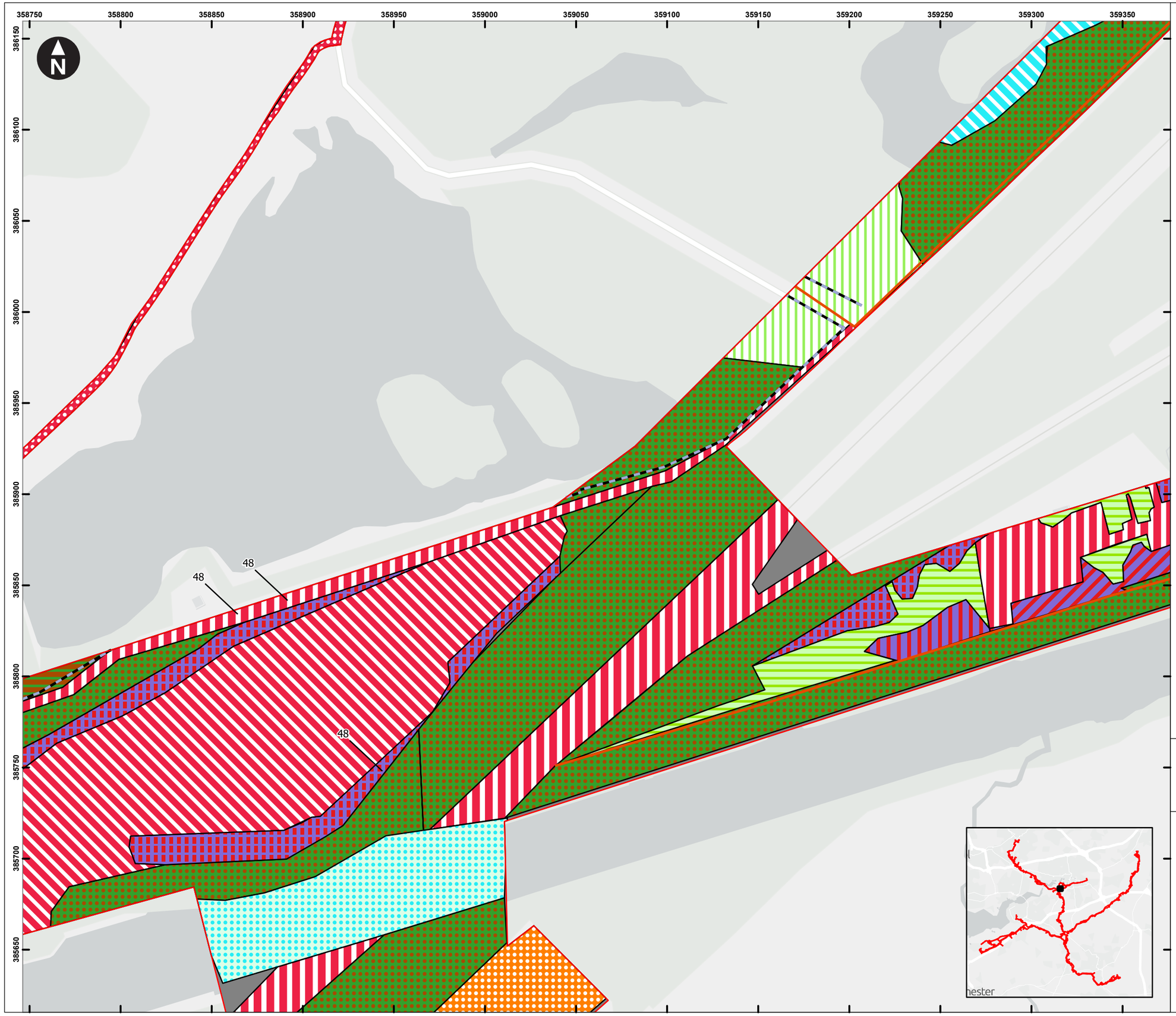
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 91 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g1a - Lowland dry acid grassland
- g3c - Other neutral grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3 - Dense scrub
- h3d - Bramble scrub
- h3h - Mixed scrub
- c1d - Non-cereal crops
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r1e - Canals
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

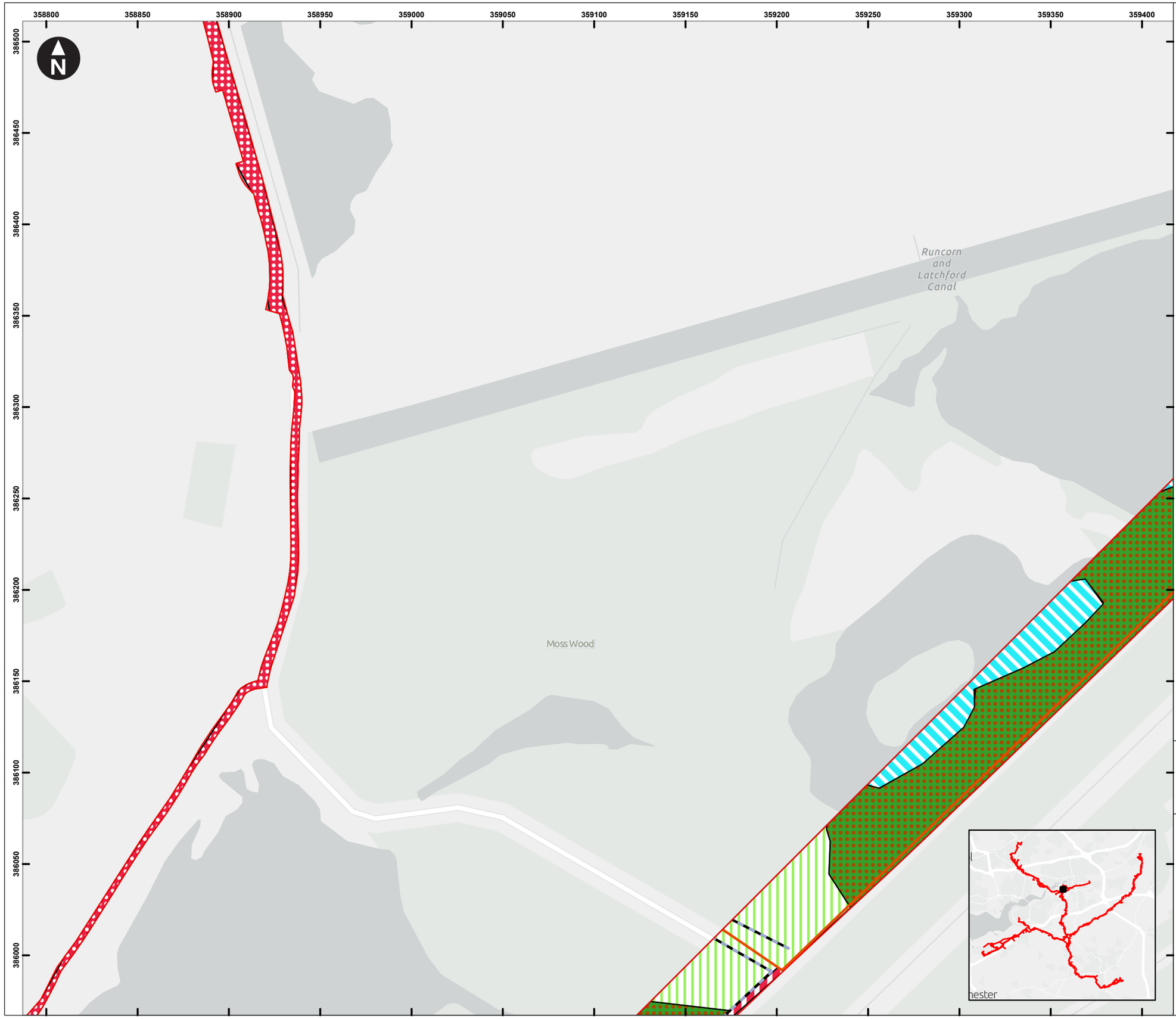
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 92 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g1a - Lowland dry acid grassland
- w1g - Other woodland, broadleaved
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

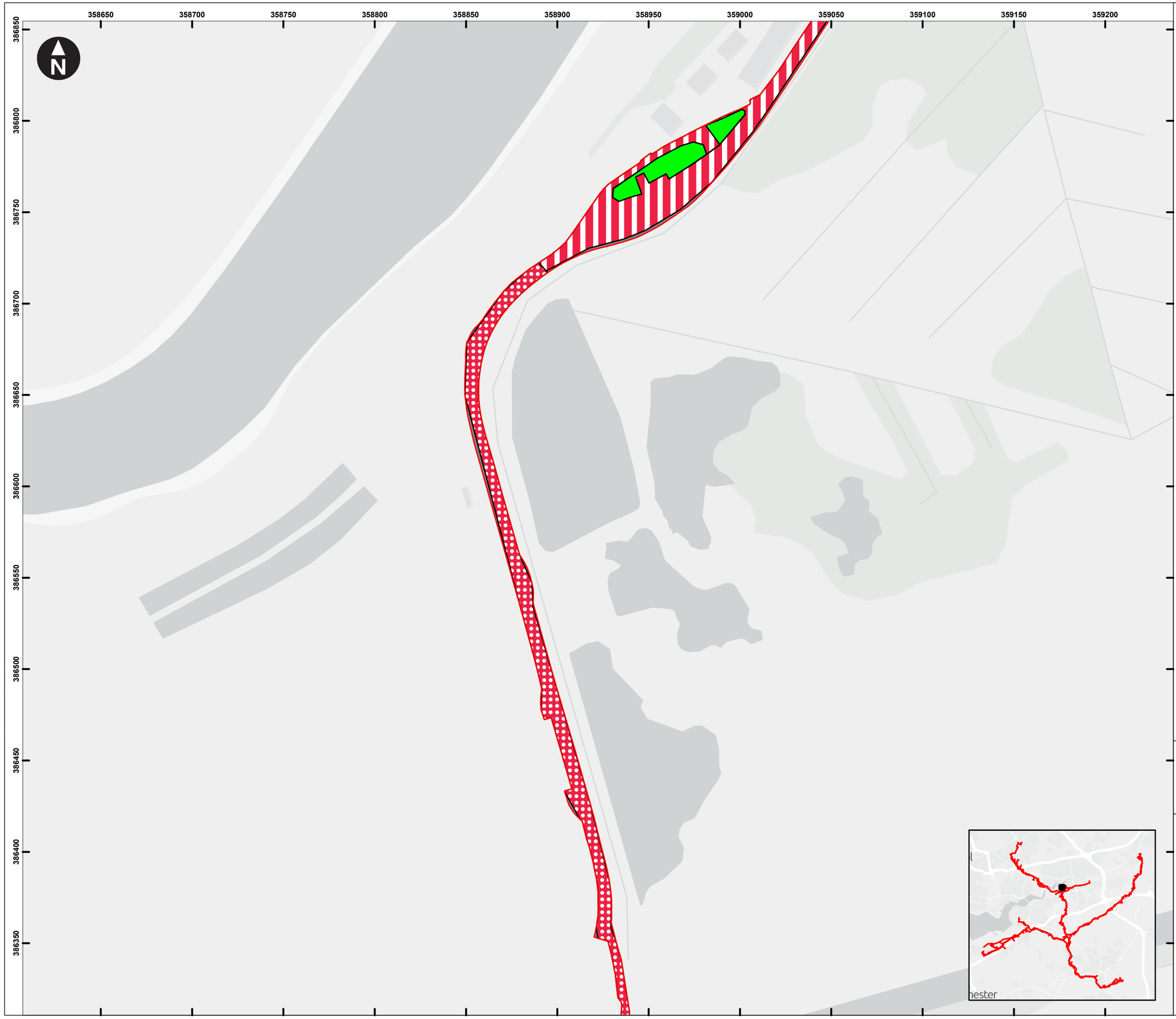
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 93 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 94 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

358850 358900 358950 359000 359050 359100 359150 359200 359250 359300 359350 359400 359450

387150 387100 387050 387000 386950 386900 386850 386800 386750 386700 386650

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 95 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359300 359350 359400 359450 359500 359550 359600 359650 359700 359750 359800 359850

387000 386950 386900 386850 386800 386750 386700 386650 386600 386550 386500

N

48

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- r1e - Canals
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 96 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r1e - Canals
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 97 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359250 359300 359350 359400 359450 359500 359550 359600 359650 359700 359750 359800 359850

386200 386150 386100 386050 386000 385950 385900 385850 385800 385750

N

Key

- Preliminary Order Limits
- g1a - Lowland dry acid grassland
- g1c - Bracken
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3 - Dense scrub
- h3d - Bramble scrub
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 98 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359750 359800 359850 359900 359950 360000 360050 360100 360150 360200 360250 360300

386400 386350 386300 386250 386200 386150 386100 386050 386000 385950 385900

N

Morley Common

Eastford Rd

Taylor St

Morley Rd

Eastford Rd

Morley Rd

Manchester Ship Canal

Key

- Preliminary Order Limits
- g1c - Bracken
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

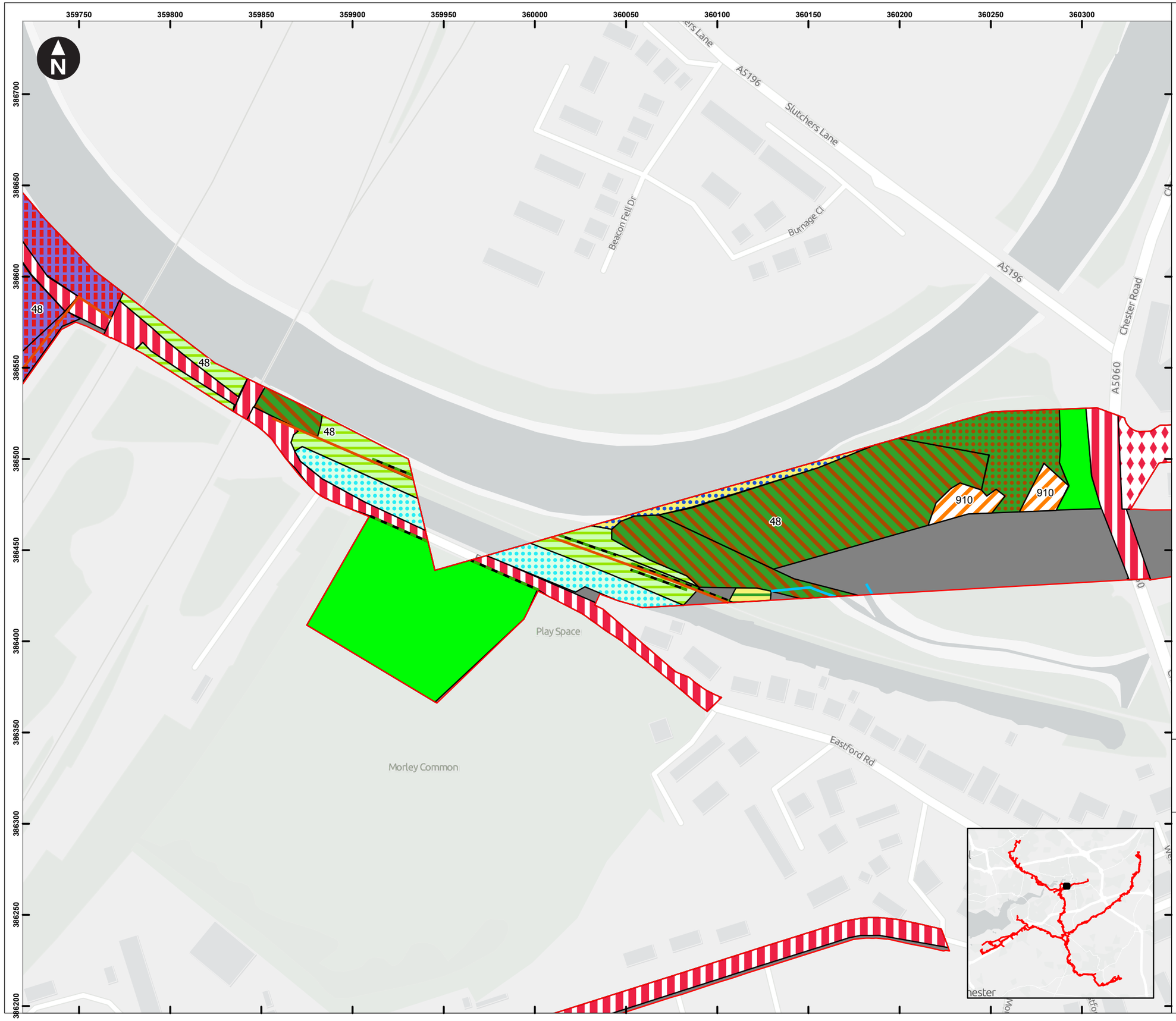
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 99 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- w2c - Other coniferous woodland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- u1d - Suburban mosaic of developed/natural surfaces
- r1e - Canals
- t2d - Intertidal mudflats
- w1g6 - Line of trees
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

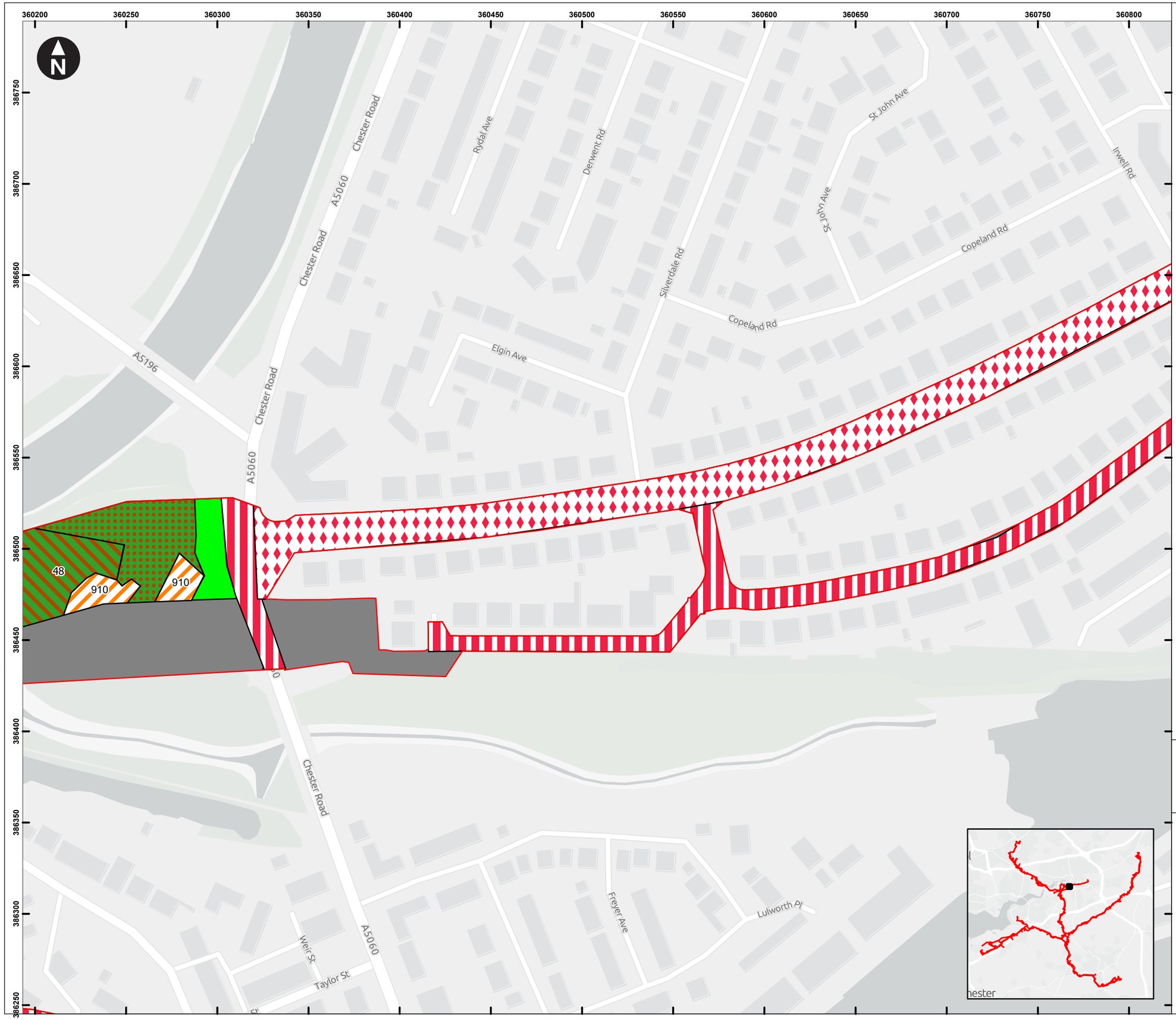
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 100 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- u1d - Suburban mosaic of developed/natural surfaces

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

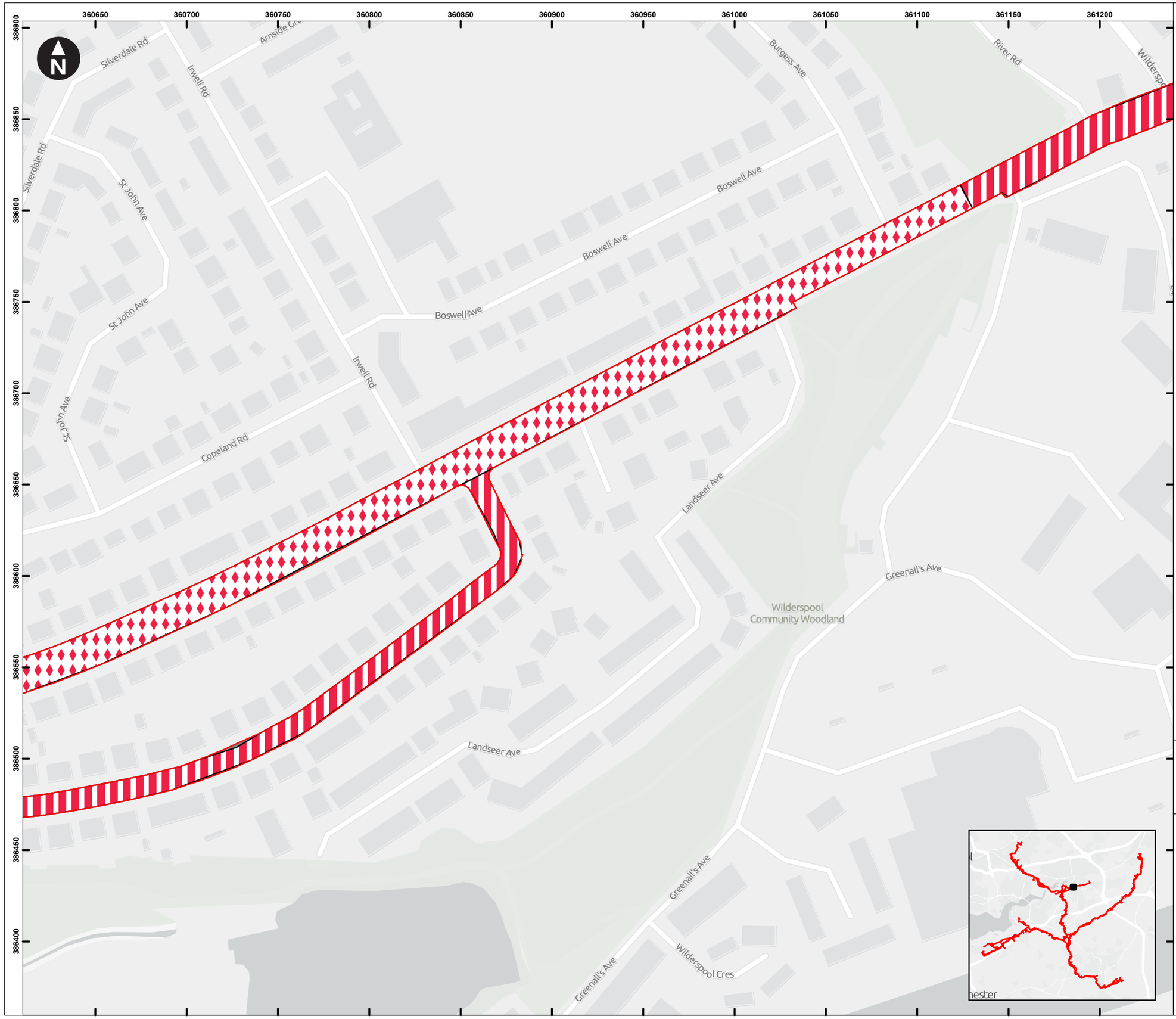
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 101 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1d - Suburban mosaic of developed/natural surfaces

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

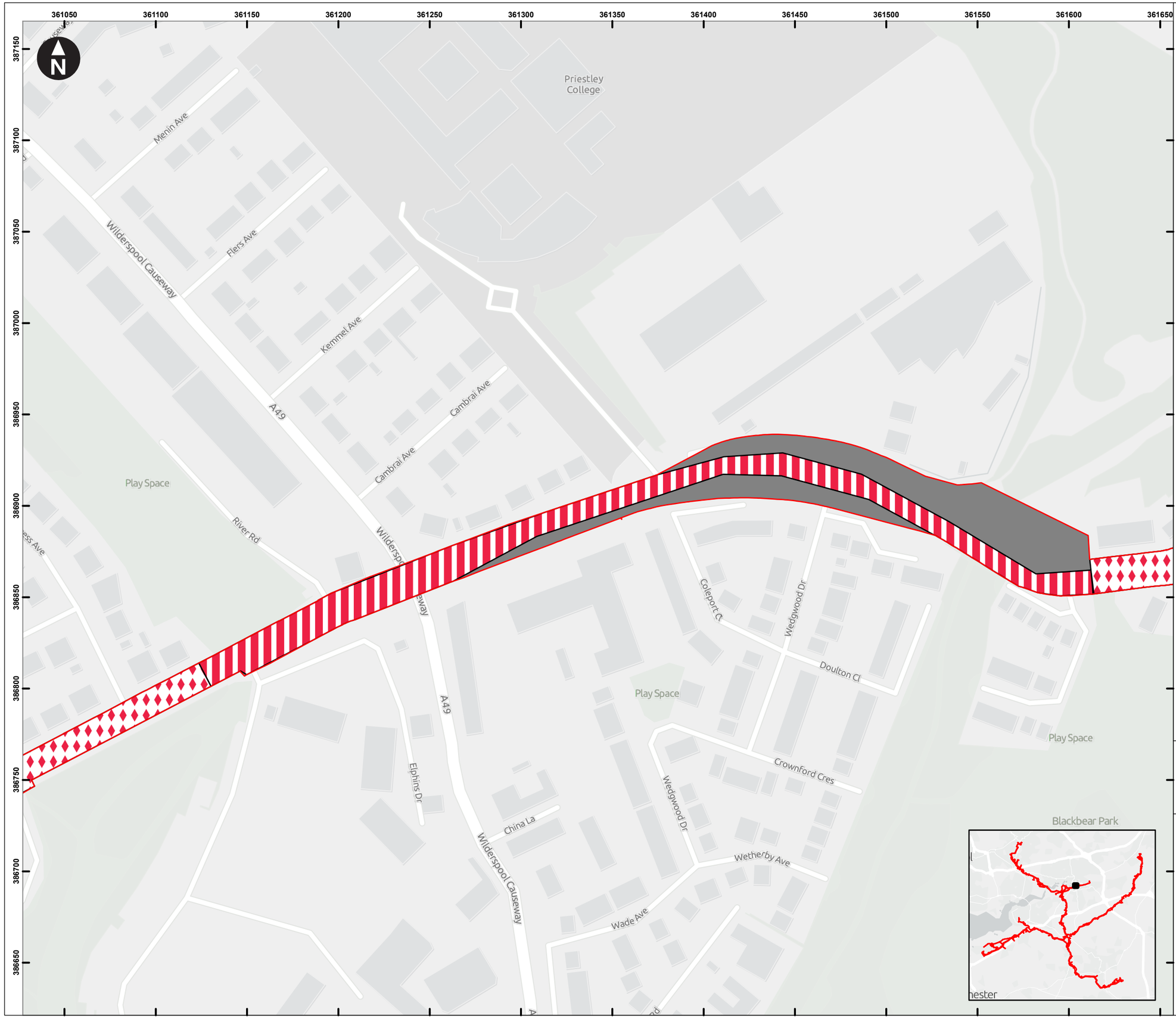
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 102 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1d - Suburban mosaic of developed/natural surfaces

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

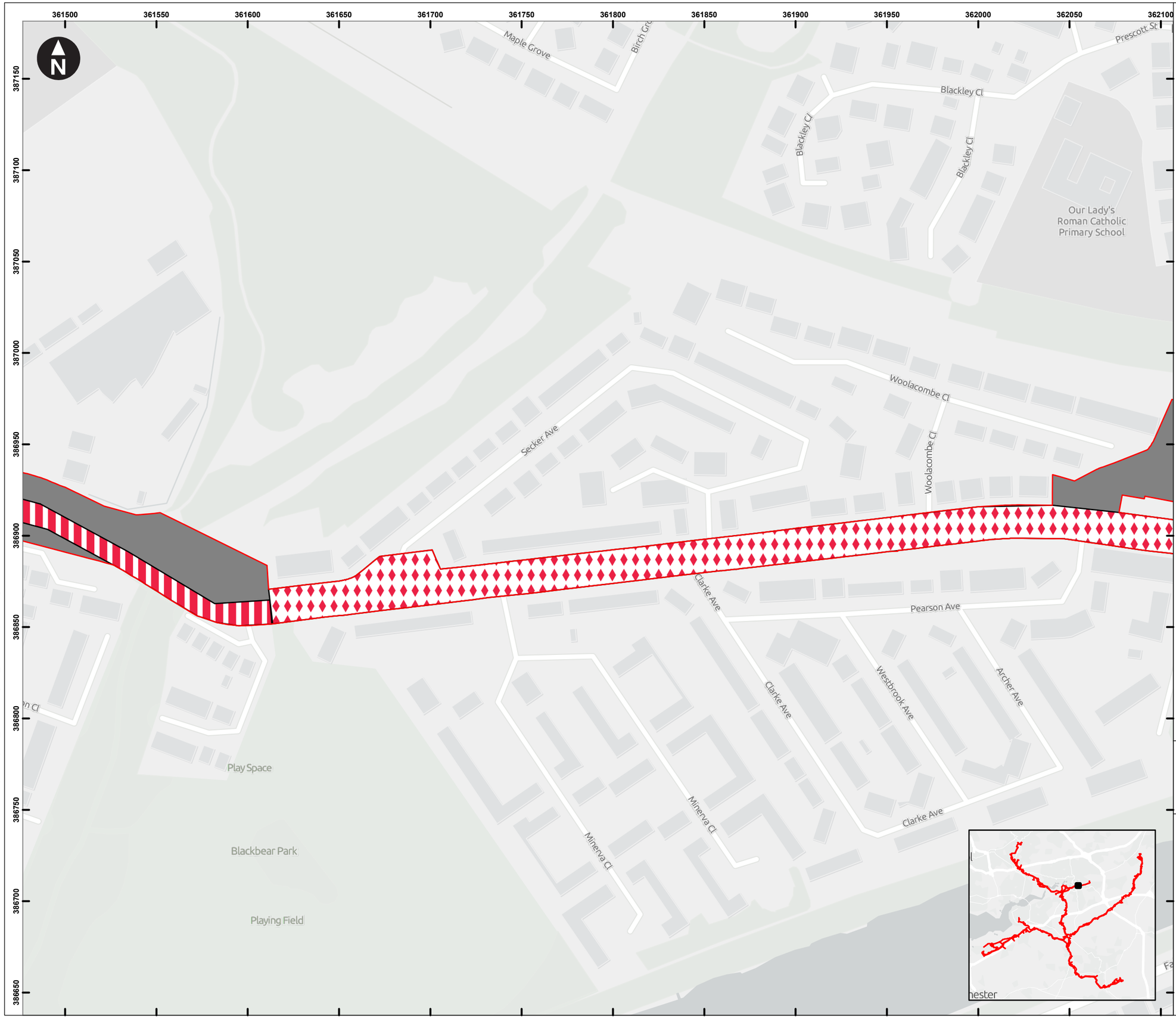
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 103 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1d - Suburban mosaic of developed/natural surfaces

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

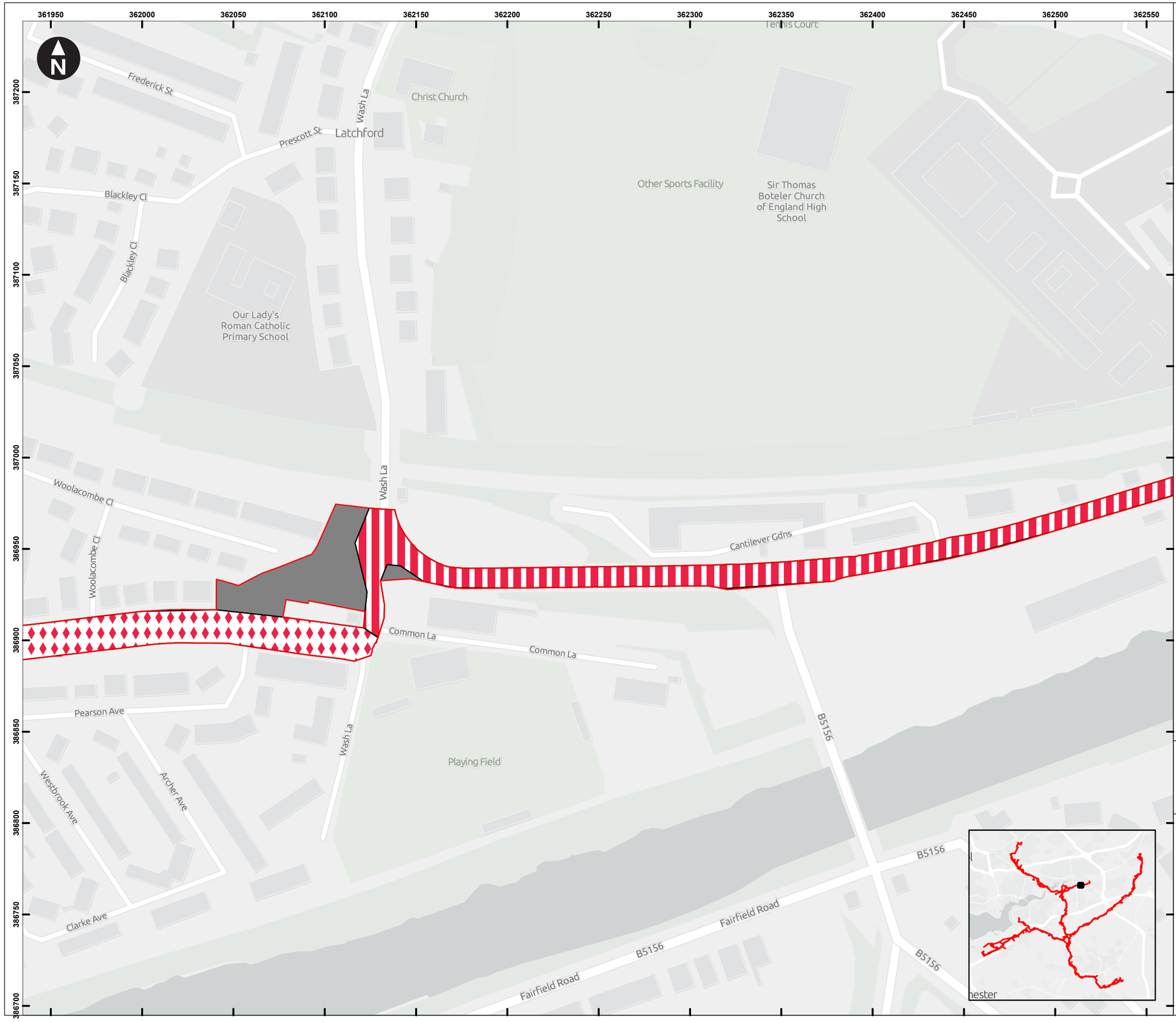
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 104 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1d - Suburban mosaic of developed/natural surfaces

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

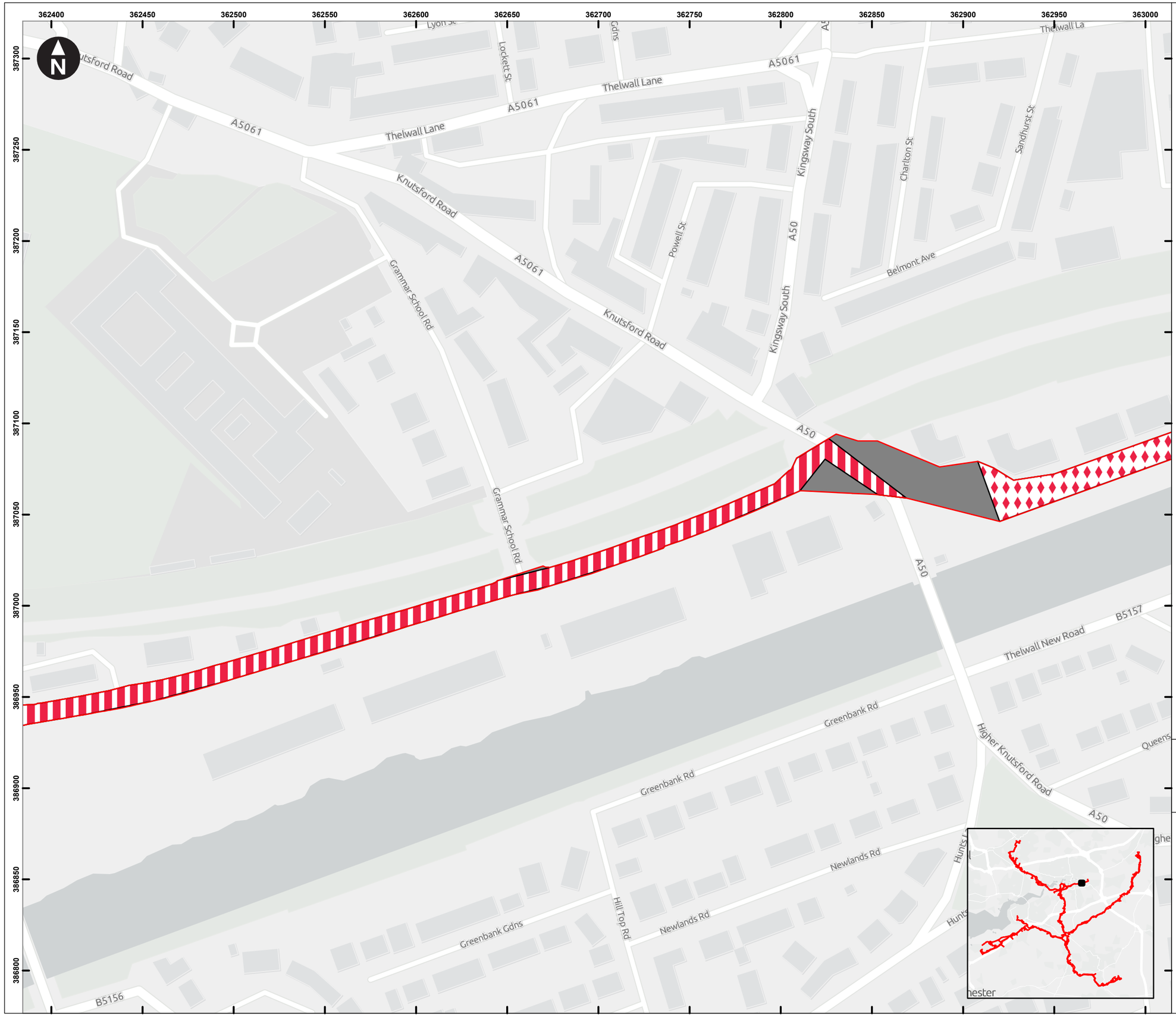
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 105 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1d - Suburban mosaic of developed/natural surfaces

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

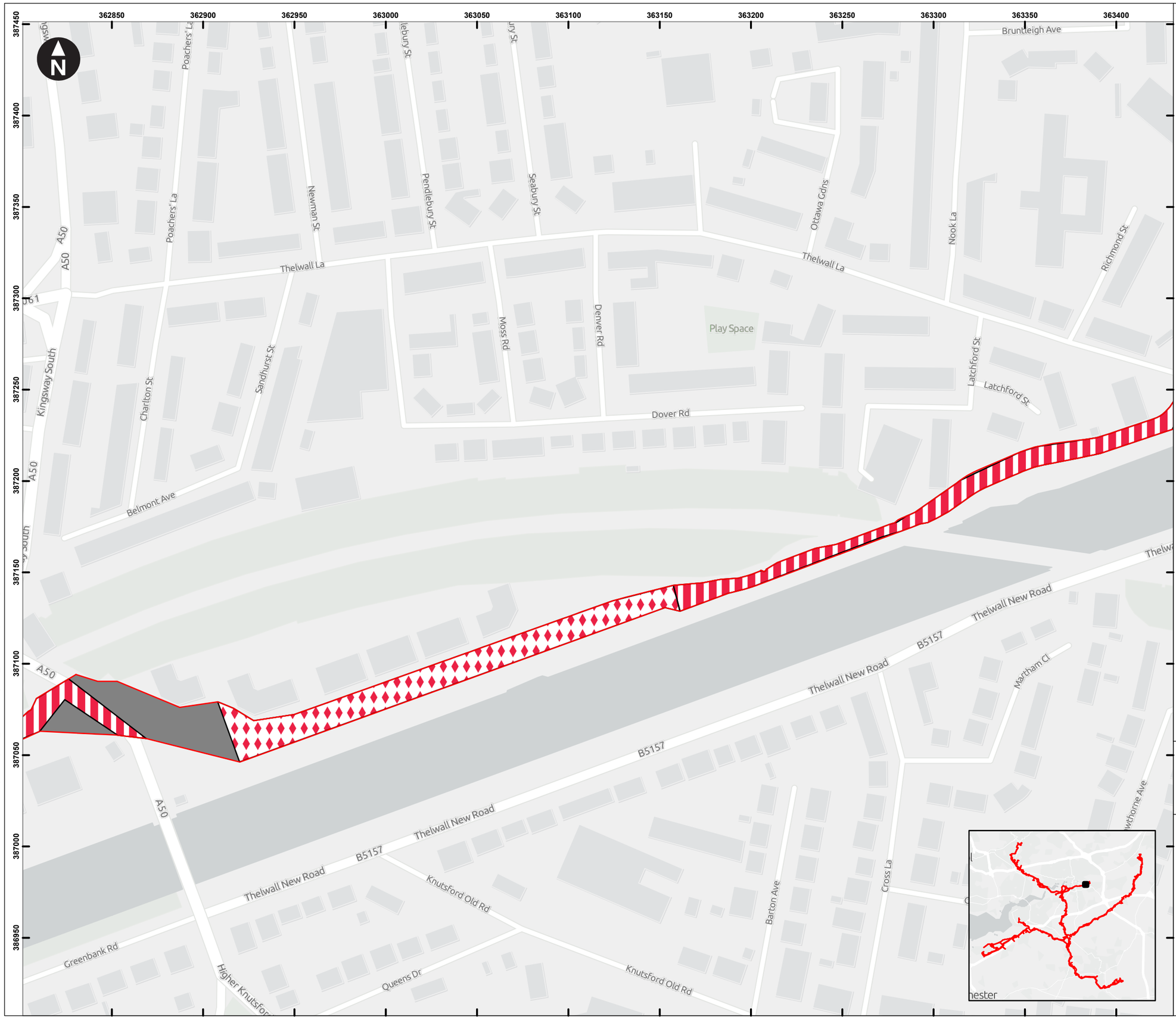
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 106 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1d - Suburban mosaic of developed/natural surfaces

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

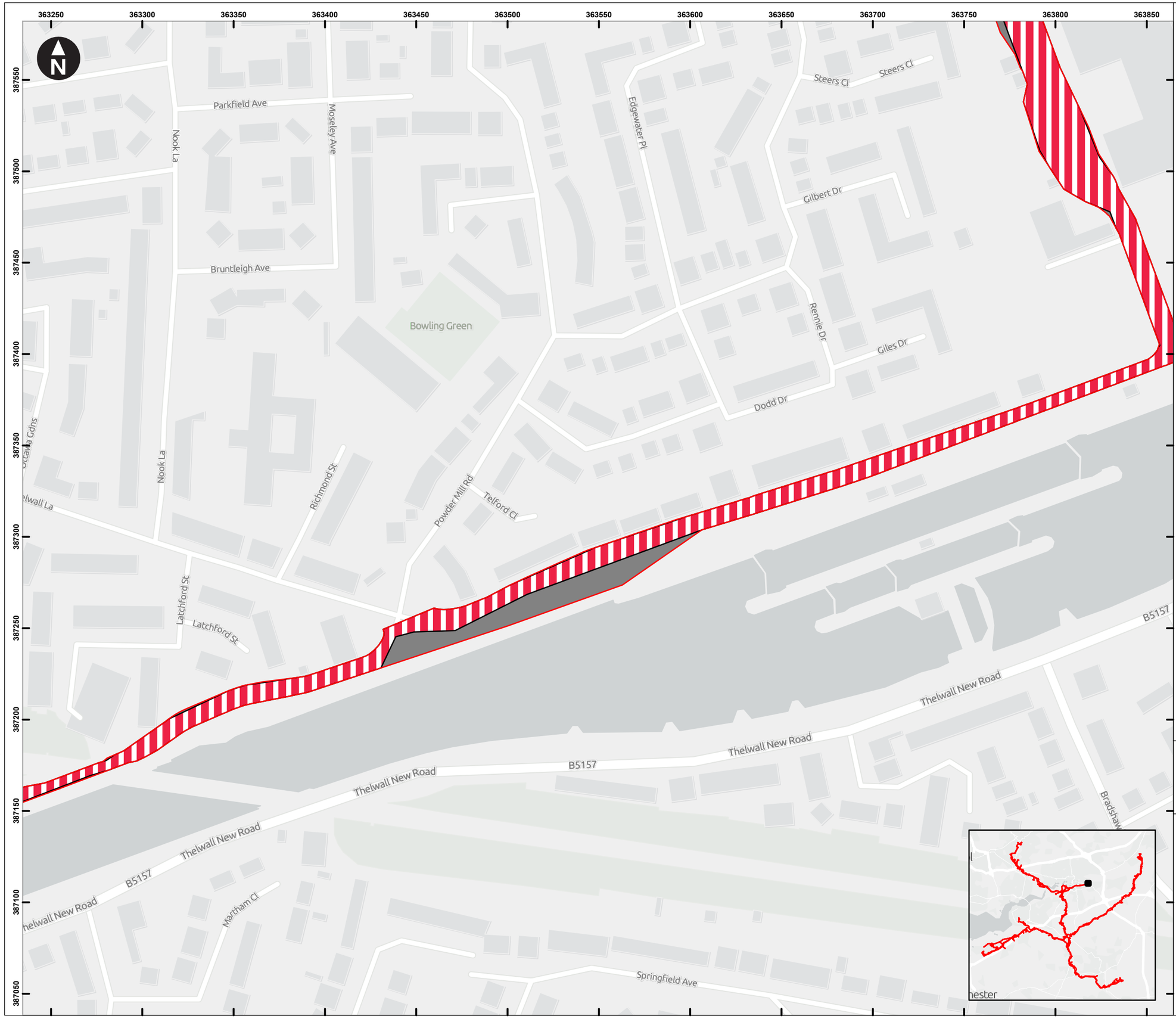
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 107 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

Preliminary Order Limits

u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 108 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

Preliminary Order Limits

u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

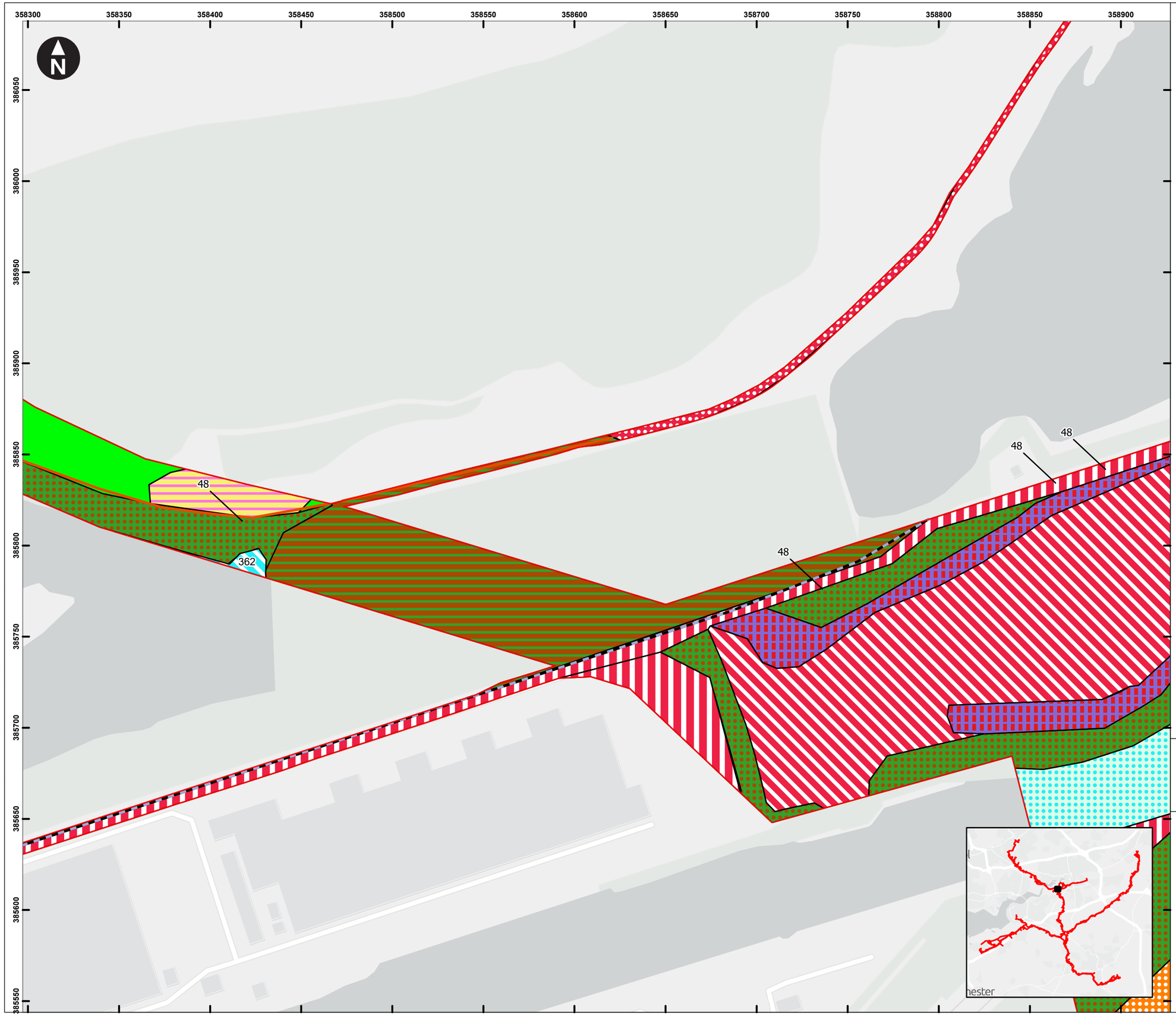
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 109 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- f2e - Reedbeds
- c1d - Non-cereal crops
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r1e - Canals
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

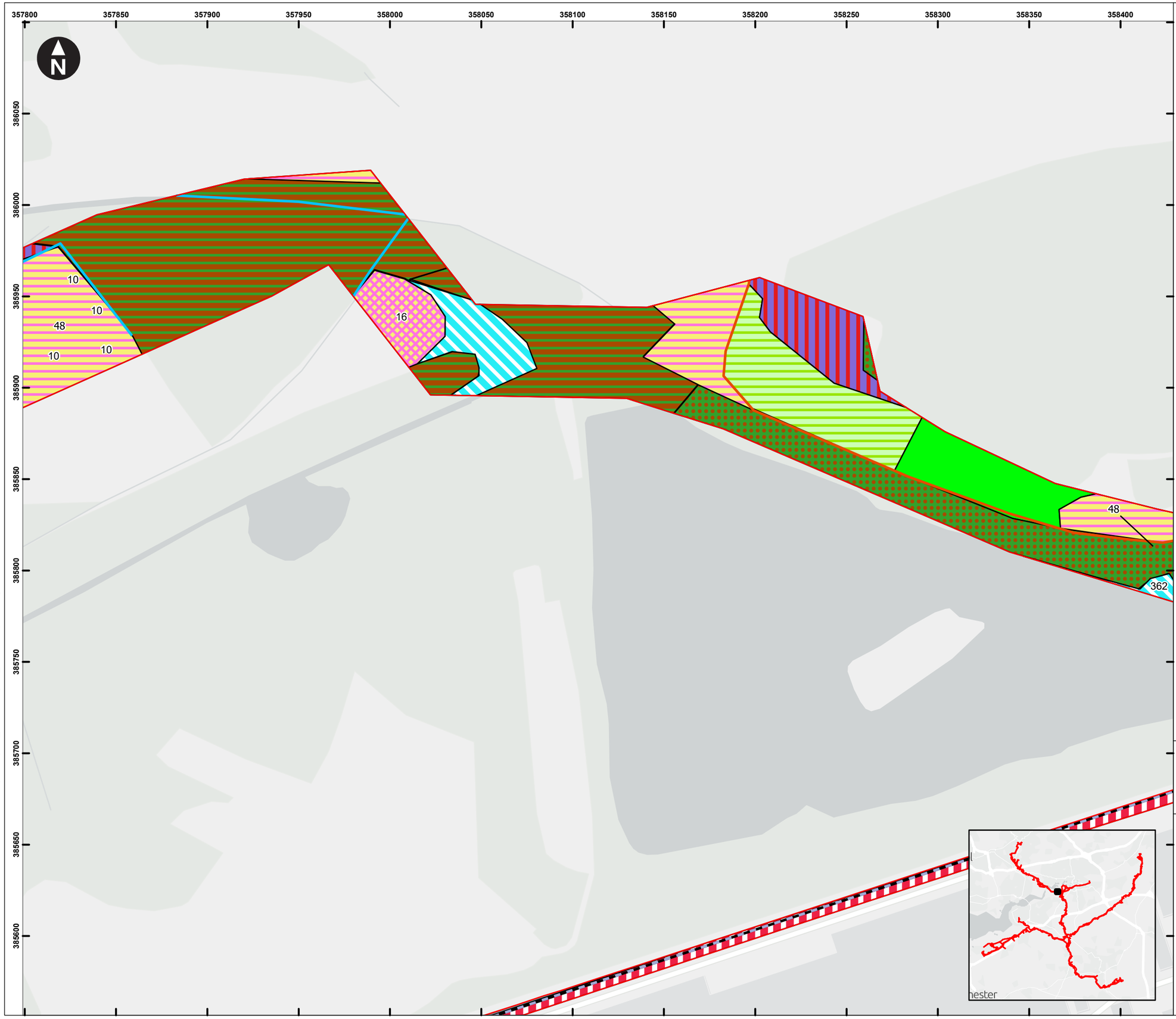
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 110 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- f2e - Reedbeds
- f2f - Other swamps
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

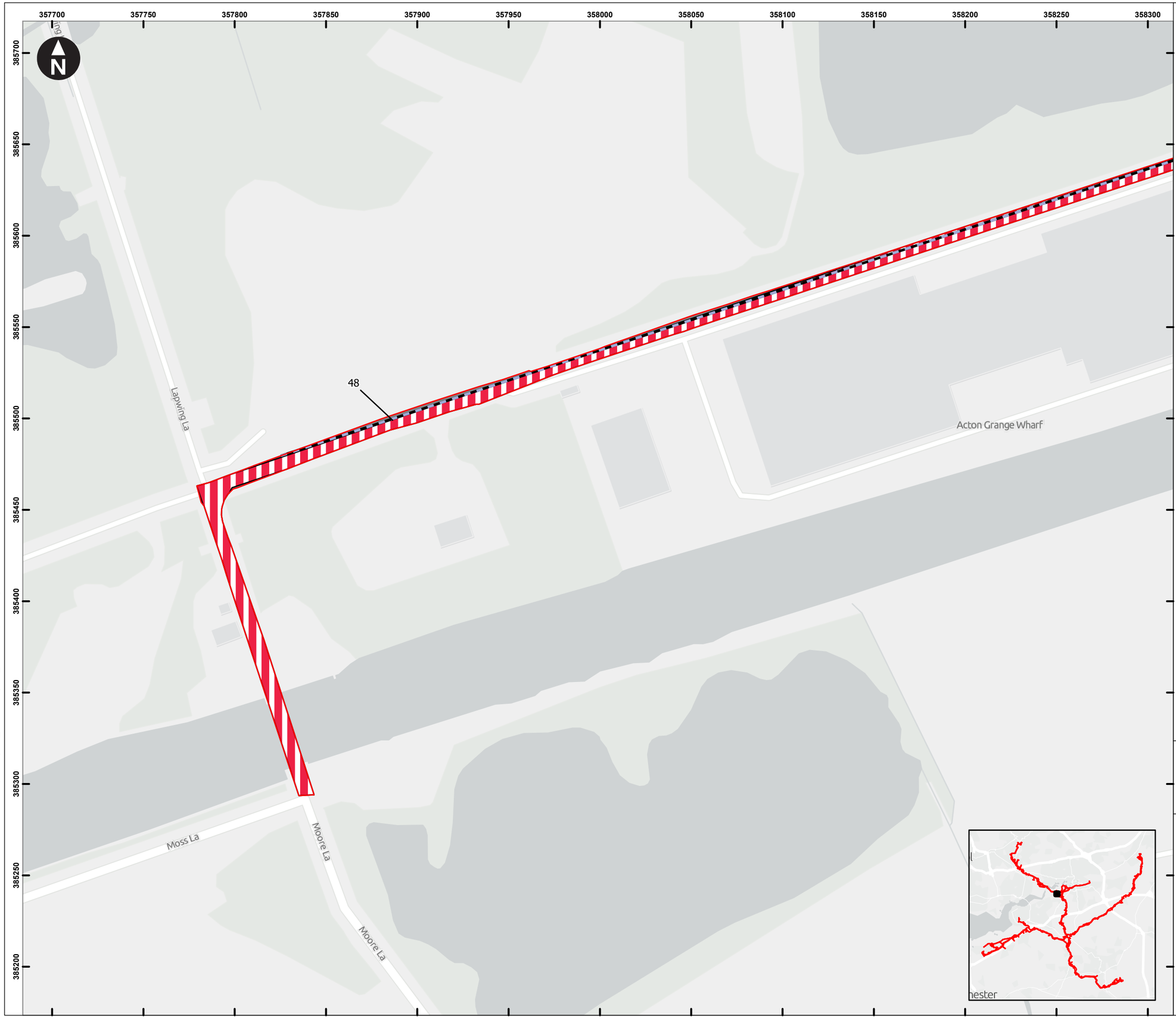
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 111 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

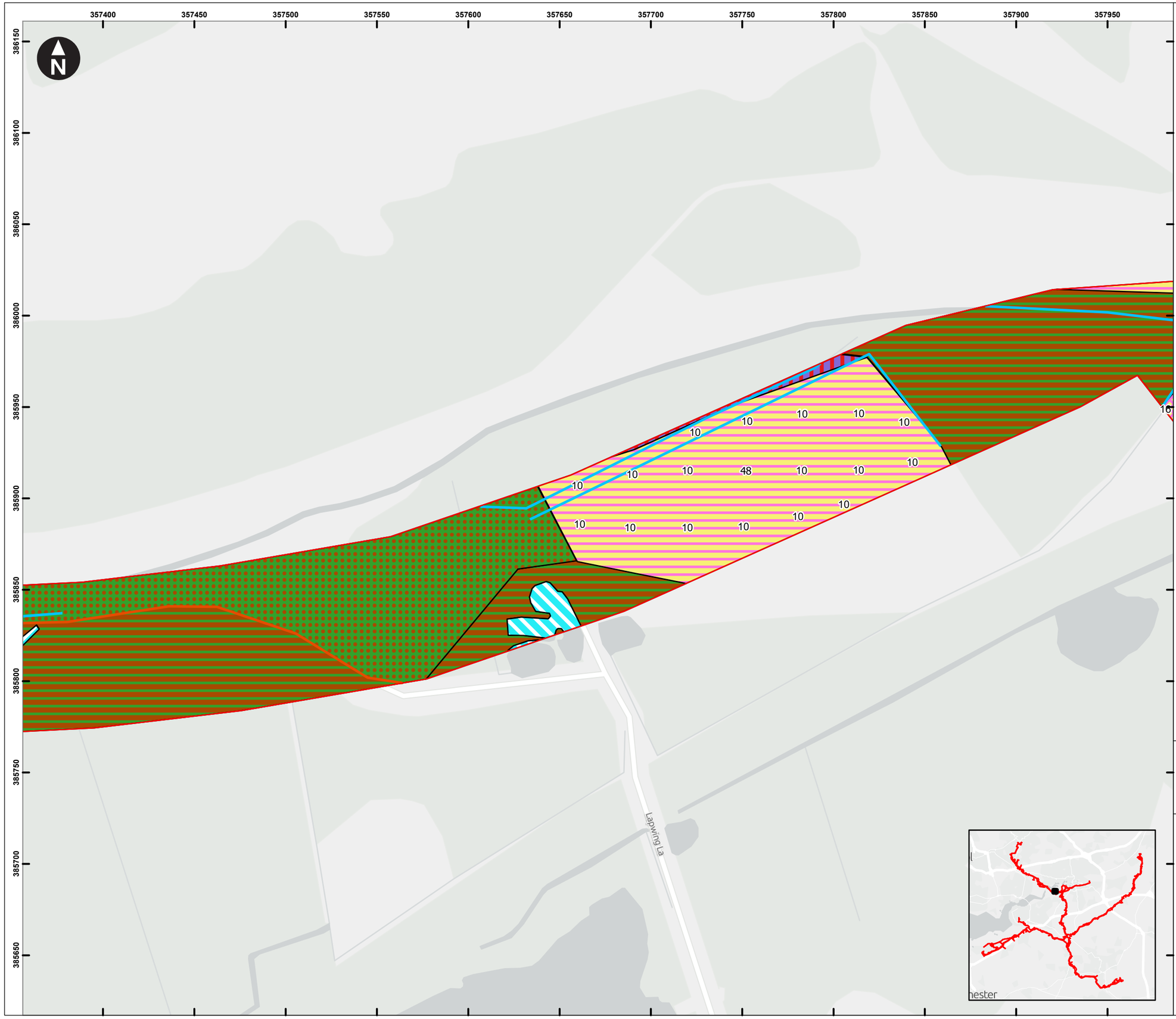
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 112 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- f2e - Reedbeds
- f2f - Other swamps
- r1 - Standing open water and canals
- r1a - Eutrophic standing water
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

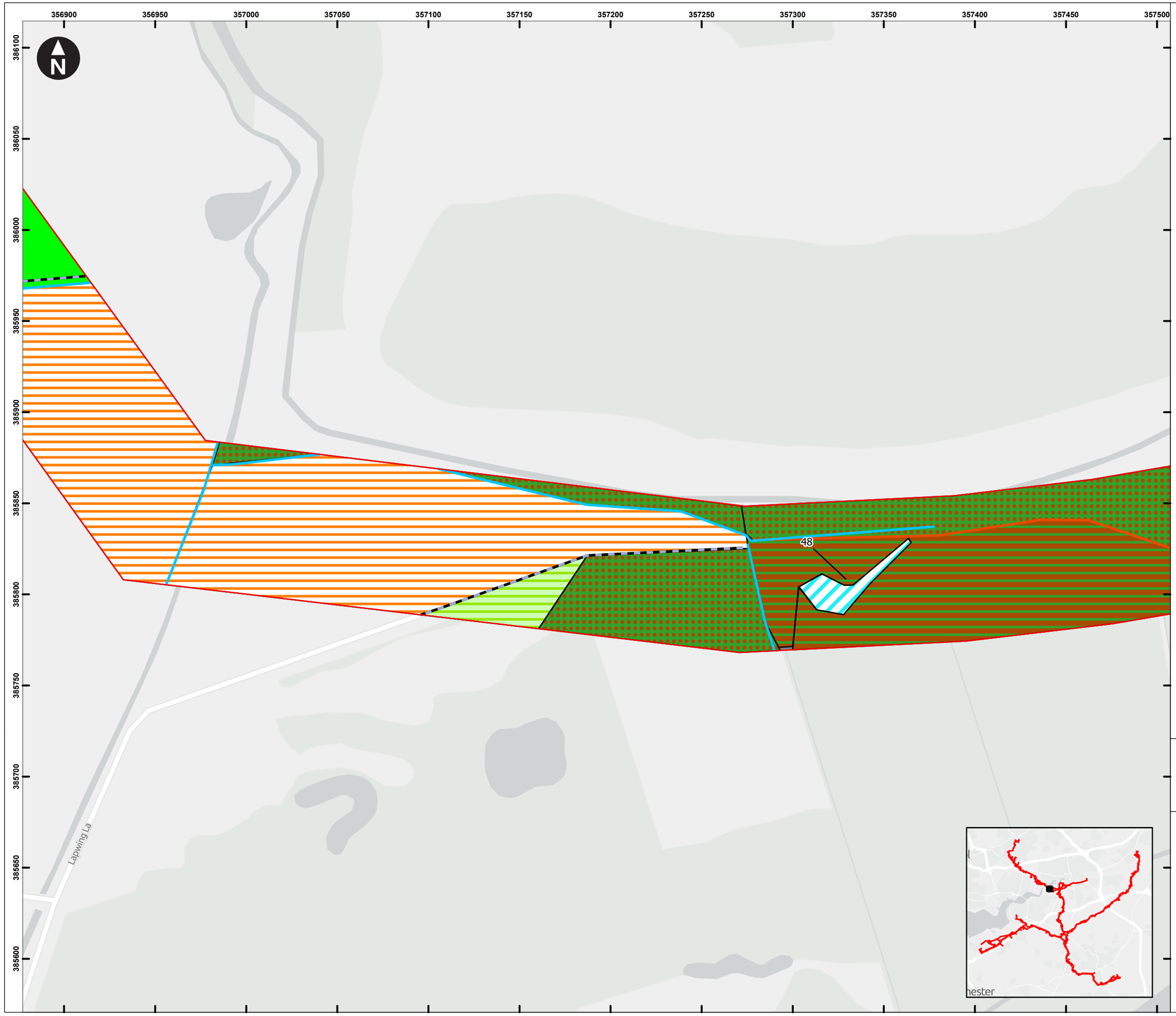
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 113 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- c1c - Cereal crops
- r1 - Standing open water and canals
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

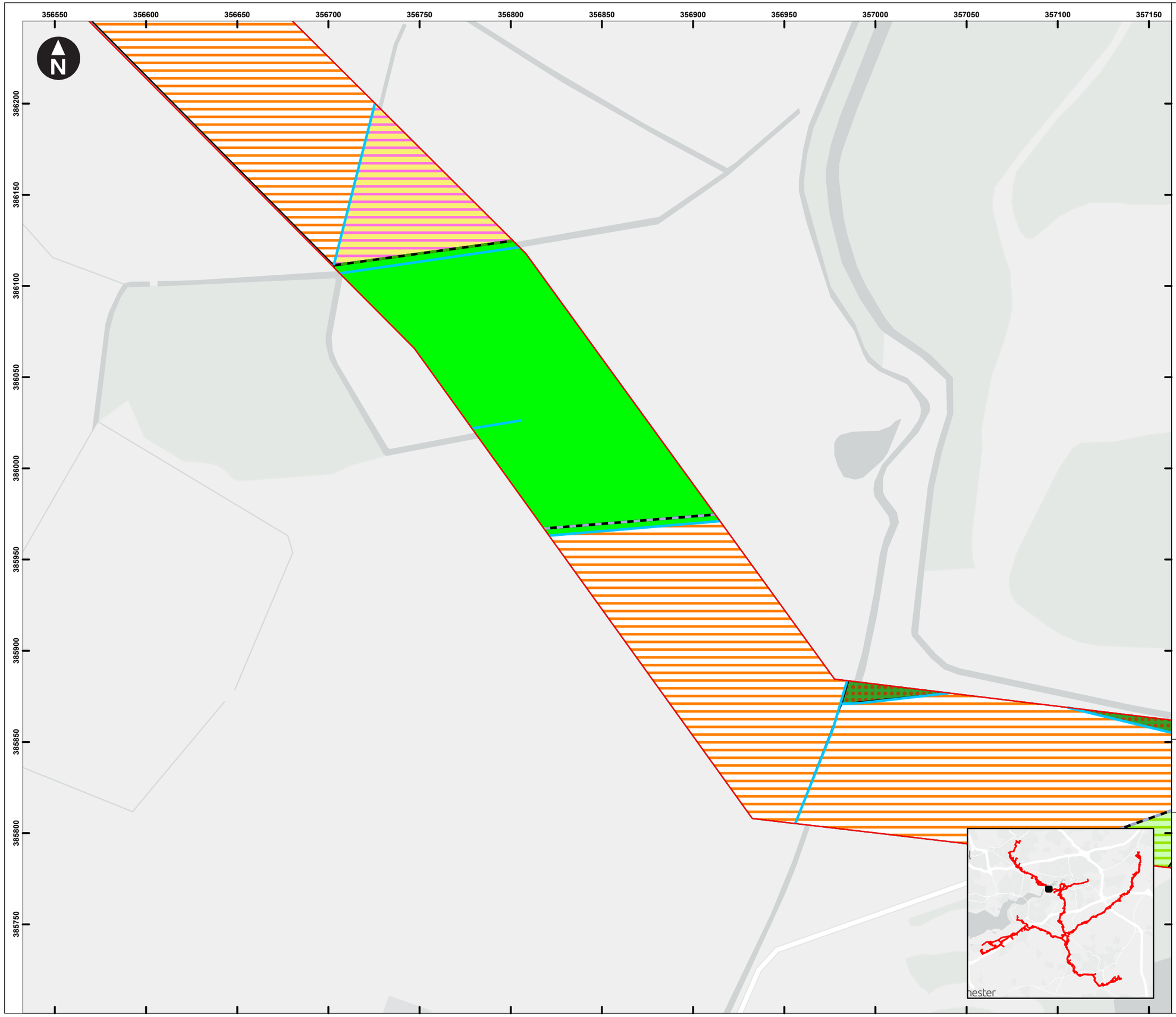
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 114 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776


356550
356600
356650
356700
356750
356800
356850
356900
356950
357000
357050
357100
357150
386200
386150
386100
386050
386000
385950
385900
385850
385800
385750
N
Key
Preliminary Order Limits
g3c - Other neutral grassland
g4 - Modified grassland
w1g - Other woodland, broadleaved
f2e - Reedbeds
c1c - Cereal crops
w1g6 - Line of trees
h2a - Hedgrow (priority habitat)
r1 191 - Ditch
0 20 40 60 80 100 m
Scale at A3: 1:2,000
GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack
Client
Cadent
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report
Figure 5C.1
UKHab Survey Results
Sheet: 115 of 265
October 2024
C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

356250 356300 356350 356400 356450 356500 356550 356600 356650 356700 356750 356800 356850

386600 386550 386500 386450 386400 386350 386300 386250 386200 386150 386100

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- f2e - Reedbeds
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1c - Artificial unvegetated unsealed surface
- r2a - Rivers (priority habitat)
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

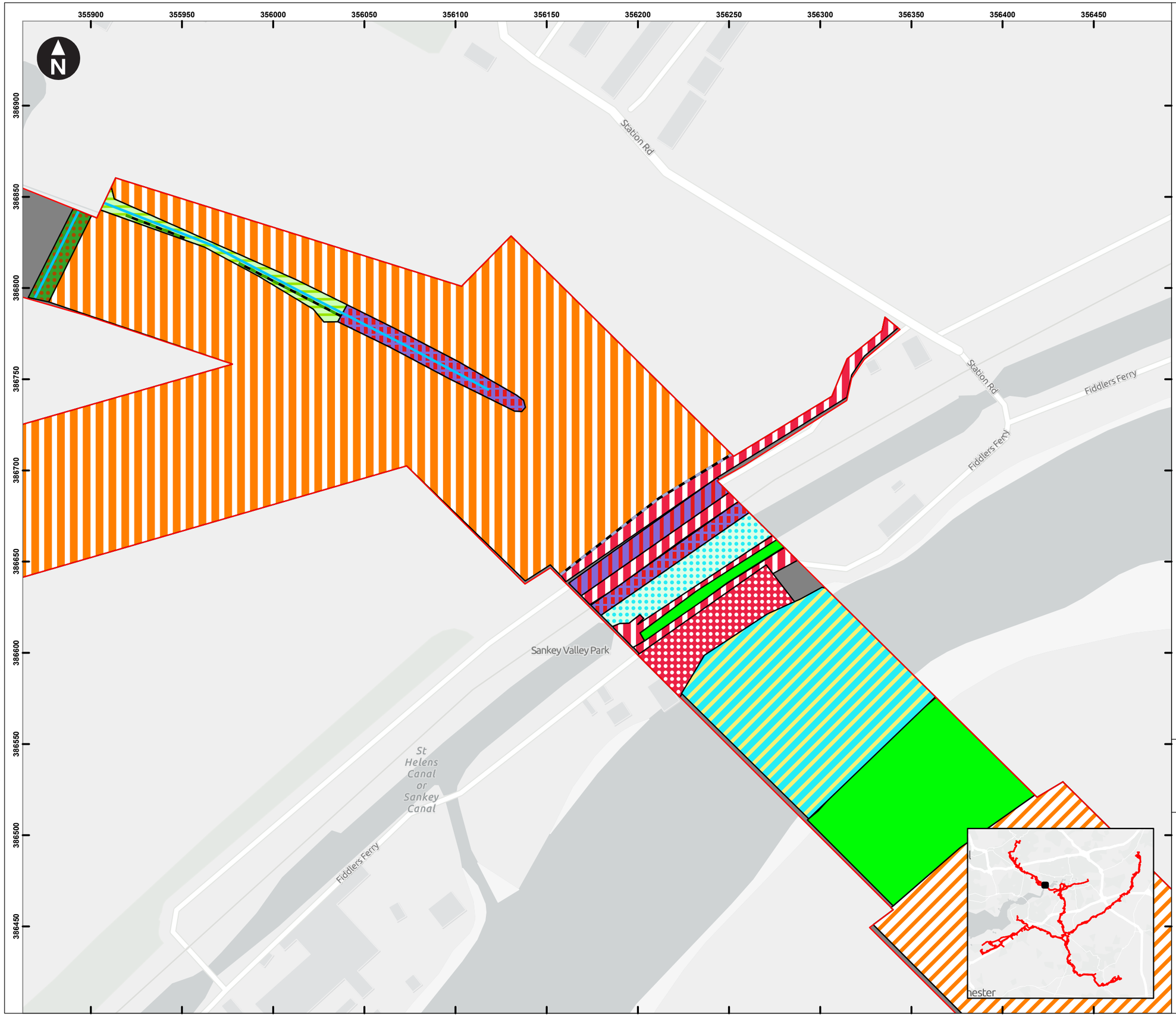
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 116 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- r2a - Rivers (priority habitat)
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

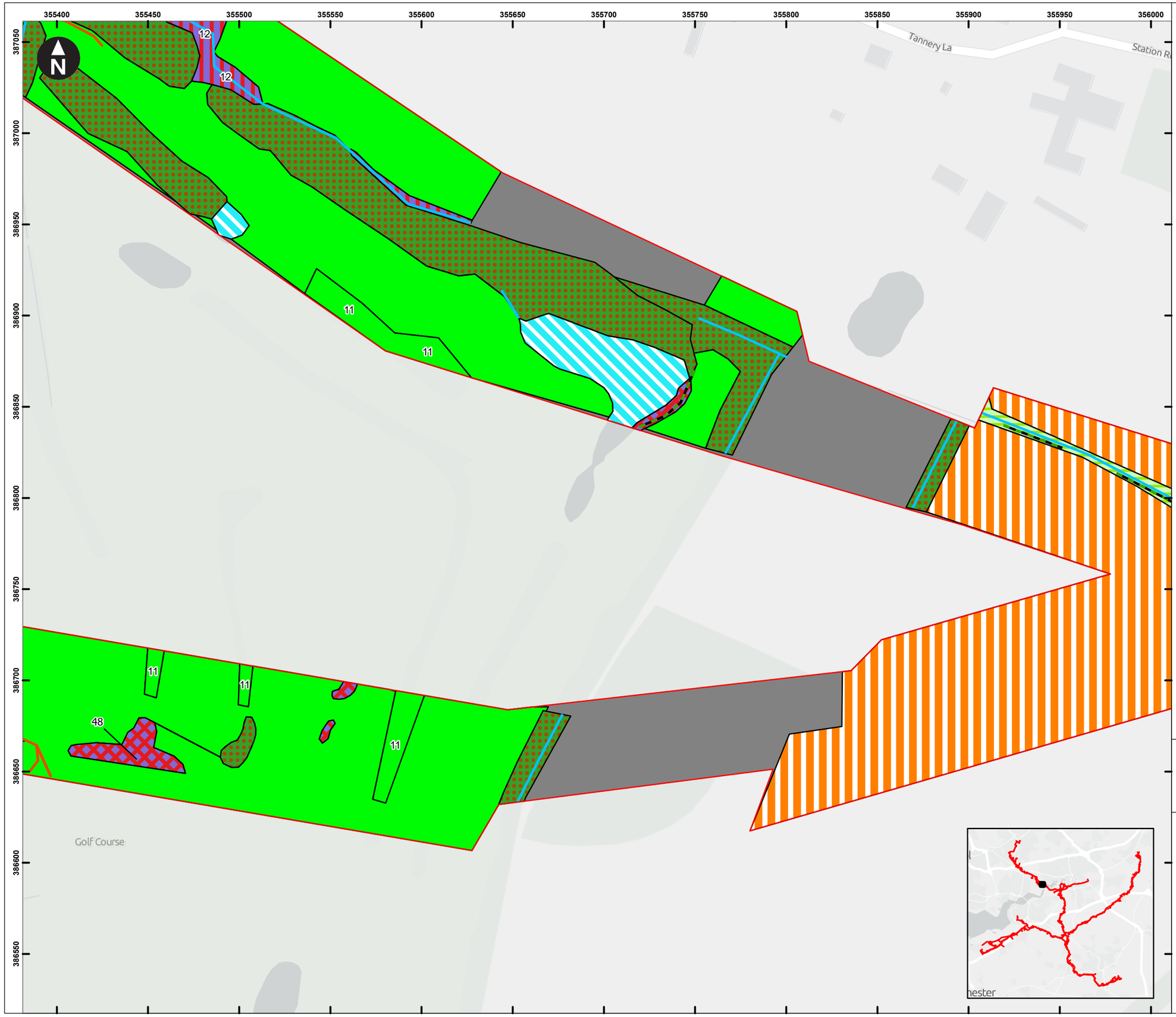
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 117 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3e - Gorse scrub
- c1b - Temporary grass and clover leys
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 118 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1d - Wet woodland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3e - Gorse scrub
- h3h - Mixed scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 119 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

354550 354600 354650 354700 354750 354800 354850 354900 354950 355000 355050 355100 355150

387150 387100 387050 387000 386950 386900 386850 386800 386750 386700 386650

N

Rose Tree Farm

Widnes Road

A562

Widnes Road

Widnes Road

A562

Widnes Road

Cross Lane Farm Cottages

48

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- w1d - Wet woodland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 120 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

354500 354550 354600 354650 354700 354750 354800 354850 354900 354950 355000 355050 355100

387500 387450 387400 387350 387300 387250 387200 387150 387100 387050 387000

N

oft La

hester

Wrd

Key

- Preliminary Order Limits
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 121 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

355150 355200 355250 355300 355350 355400 355450 355500 355550 355600 355650 355700

387350 387300 387250 387200 387150 387100 387050 387000 386950 386900 386850

N

Other Sports Facility

Widnes Road

A562

Widnes Road

Cuerdley Rd

Newlyn Gdns

Tannery La

Tannery La

Penrose Gdns

Penrose Gdns

Mowcroft La

A562

Cross Lane Farm Cottages

12

12

11

11

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3e - Gorse scrub
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

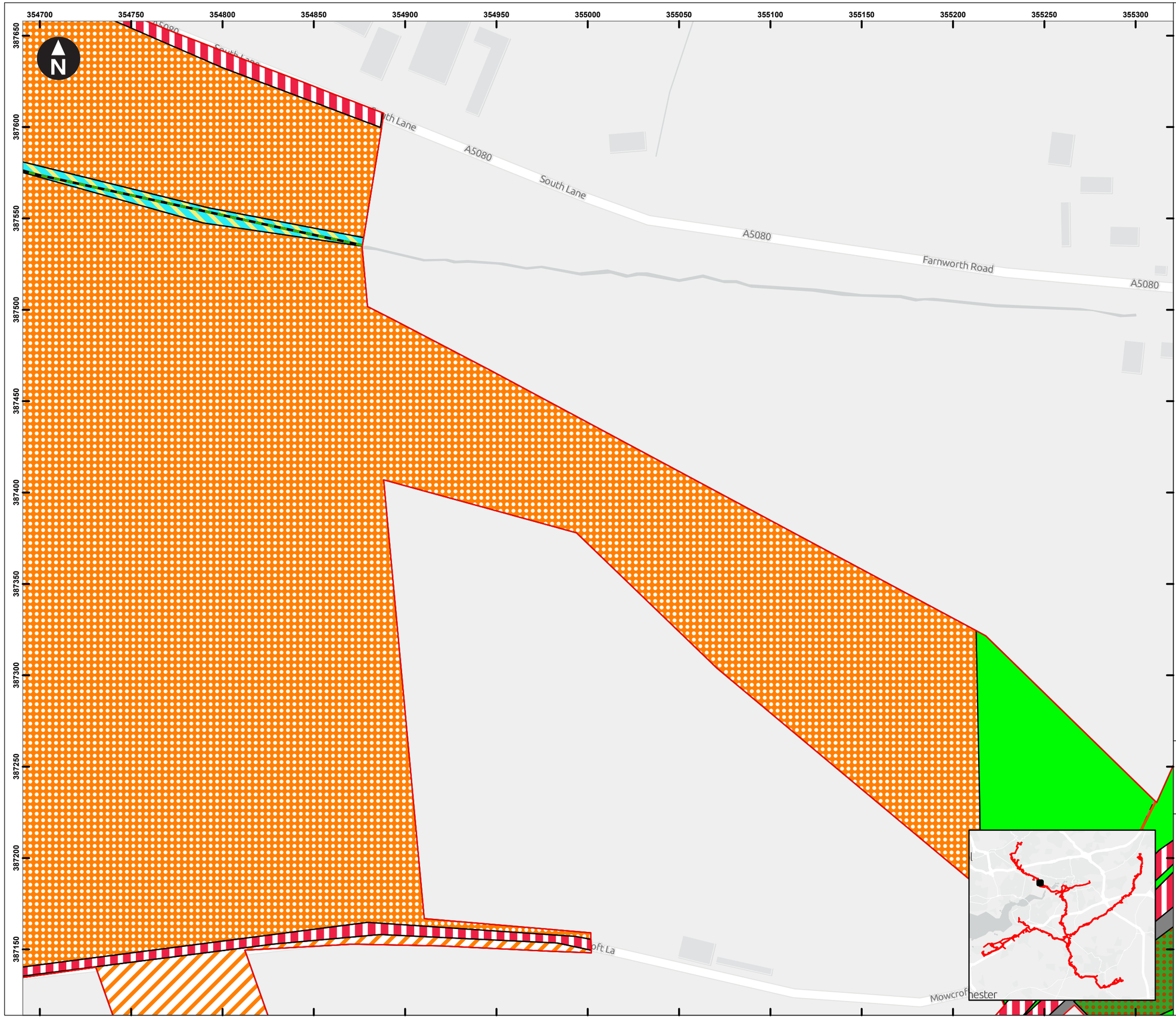
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 122 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 123 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

354400 354450 354500 354550 354600 354650 354700 354750 354800 354850 354900 354950

387850 387800 387750 387700 387650 387600 387550 387500 387450 387400

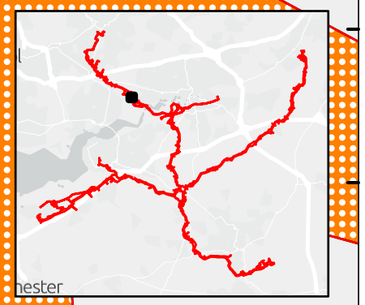
N

A5080

Four Top'd Oak

A5080

A5080



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 124 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

354300 354350 354400 354450 354500 354550 354600 354650 354700 354750 354800 354850 354900

388250 388200 388150 388100 388050 388000 387950 387900 387850 387800 387750

N

South Lane

A5080

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

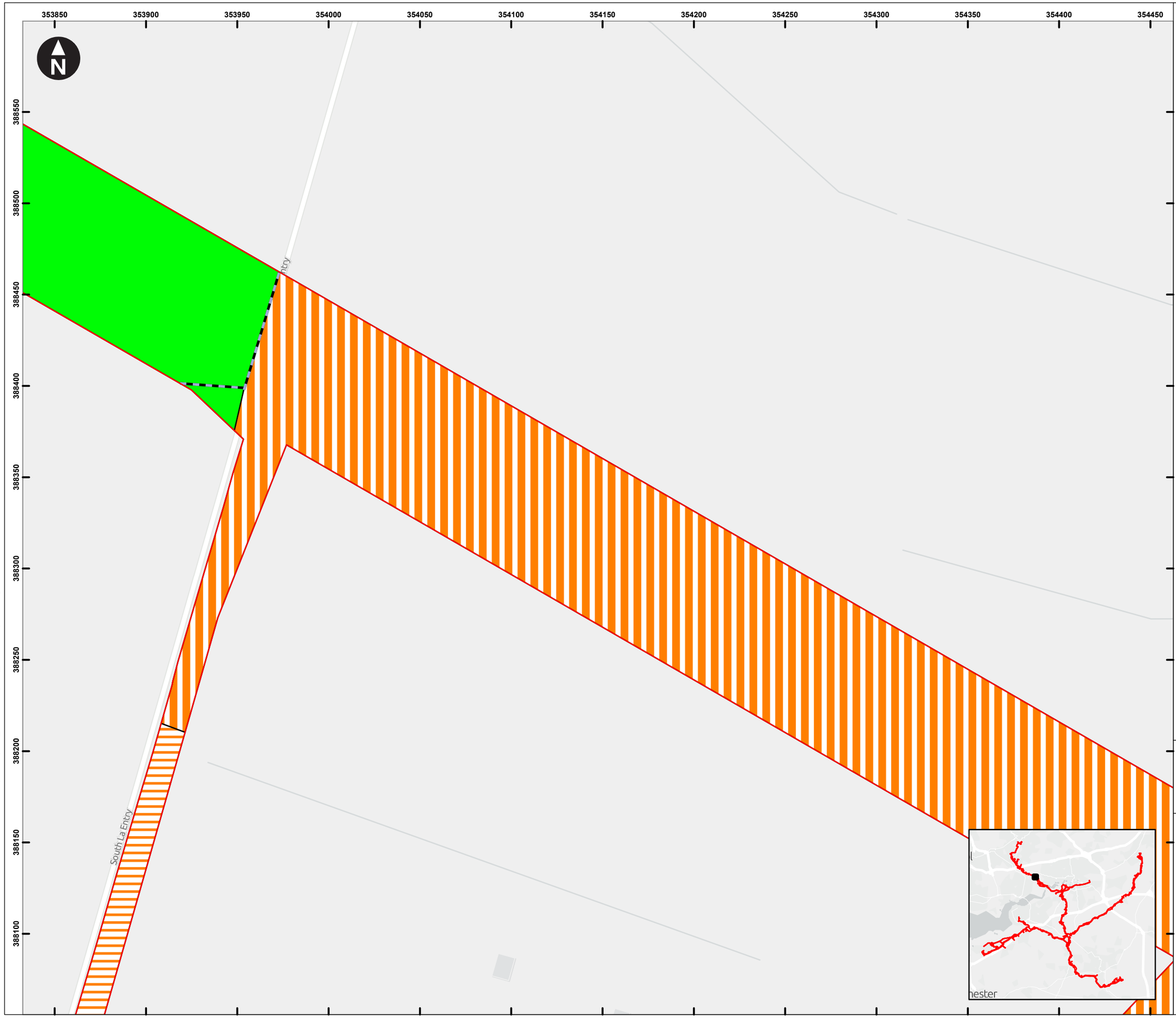
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 125 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 126 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 127 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

353400 353450 353500 353550 353600 353650 353700 353750 353800 353850 353900 353950

388850 388800 388750 388700 388650 388600 388550 388500 388450 388400 388350

N

10

hester

Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1b - Temporary grass and clover leys
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

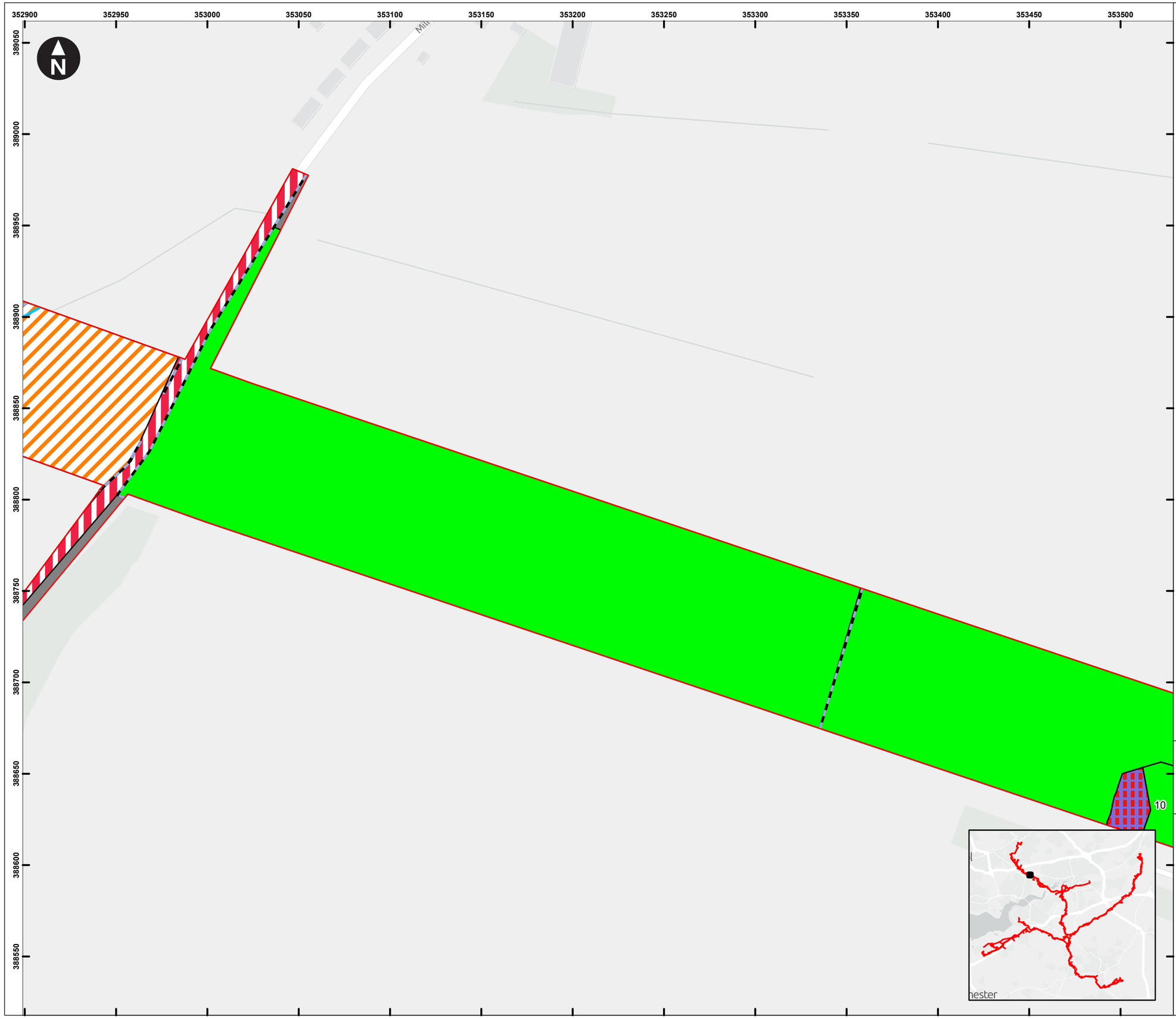
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 128 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 129 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

352450 352500 352550 352600 352650 352700 352750 352800 352850 352900 352950 353000 353050

389100 389050 389000 388950 388900 388850 388800 388750 388700 388650 388600

N

Twyford La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

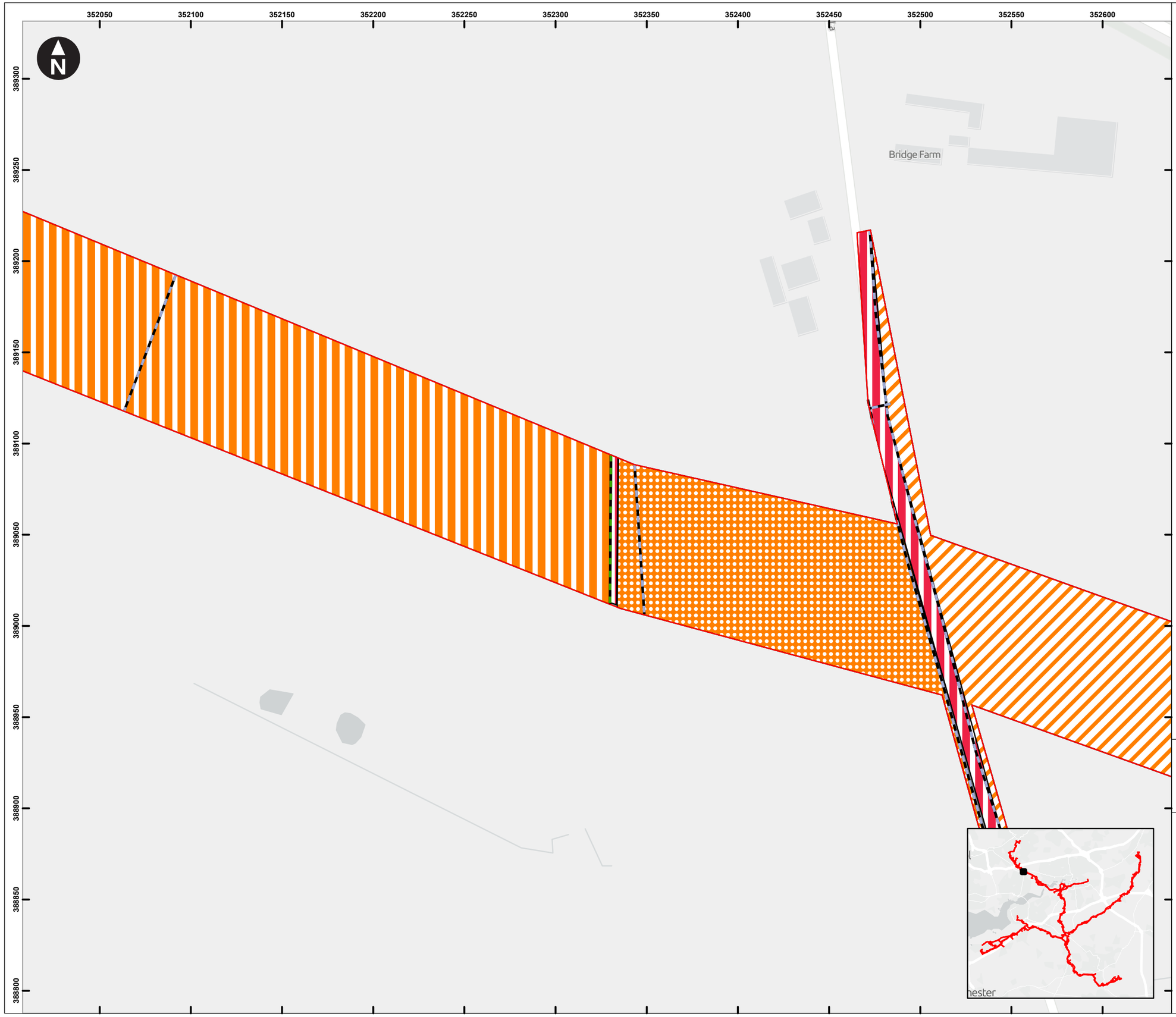
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 130 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

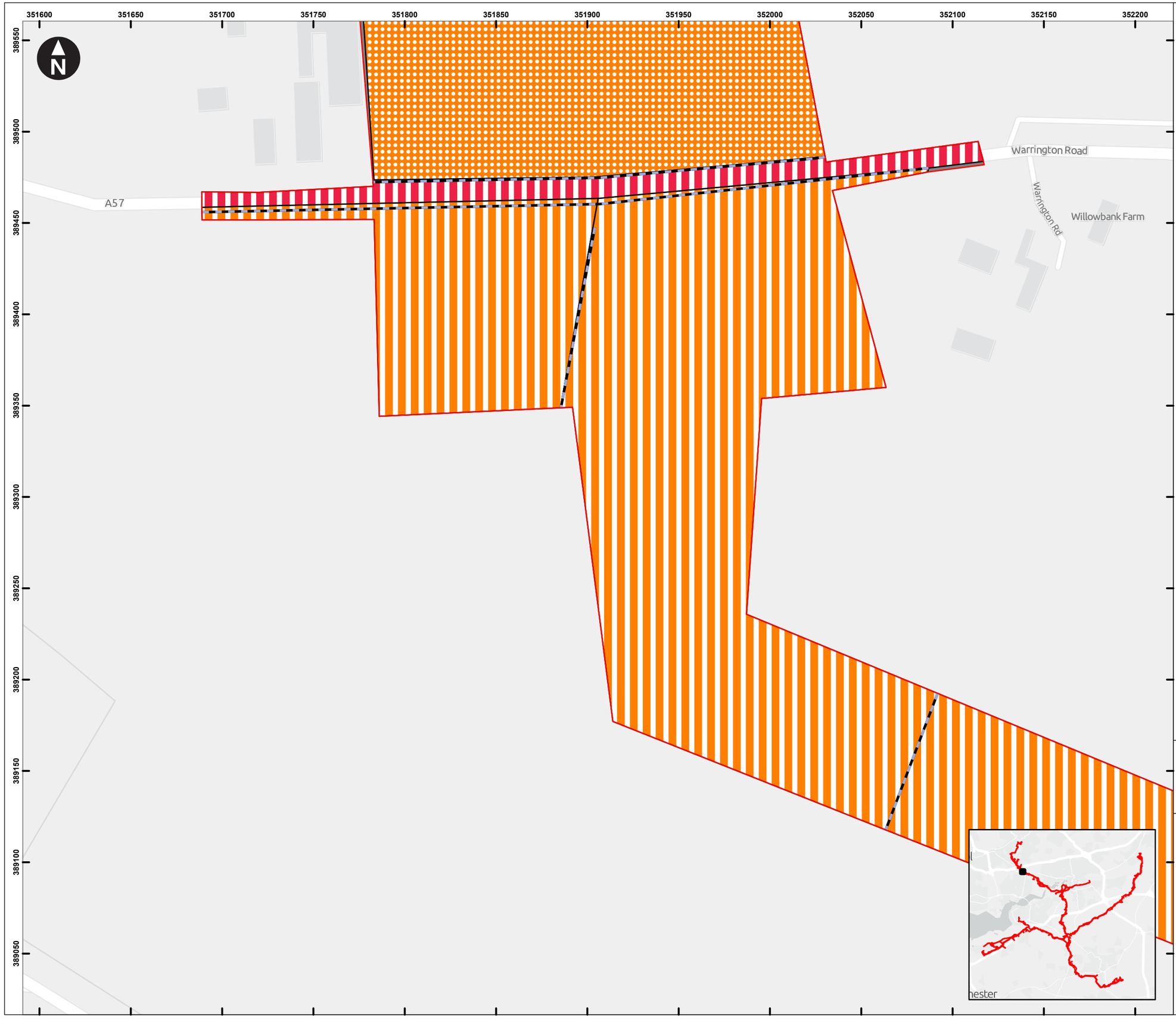
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 131 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 132 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

351600 351650 351700 351750 351800 351850 351900 351950 352000 352050 352100 352150

389850 389800 389750 389700 389650 389600 389550 389500 389450 389400 389350

N

Old Brook Hall Farm

A57

Warrington Road

Warrington Rd

Willowbar

hester

Key

- Preliminary Order Limits
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

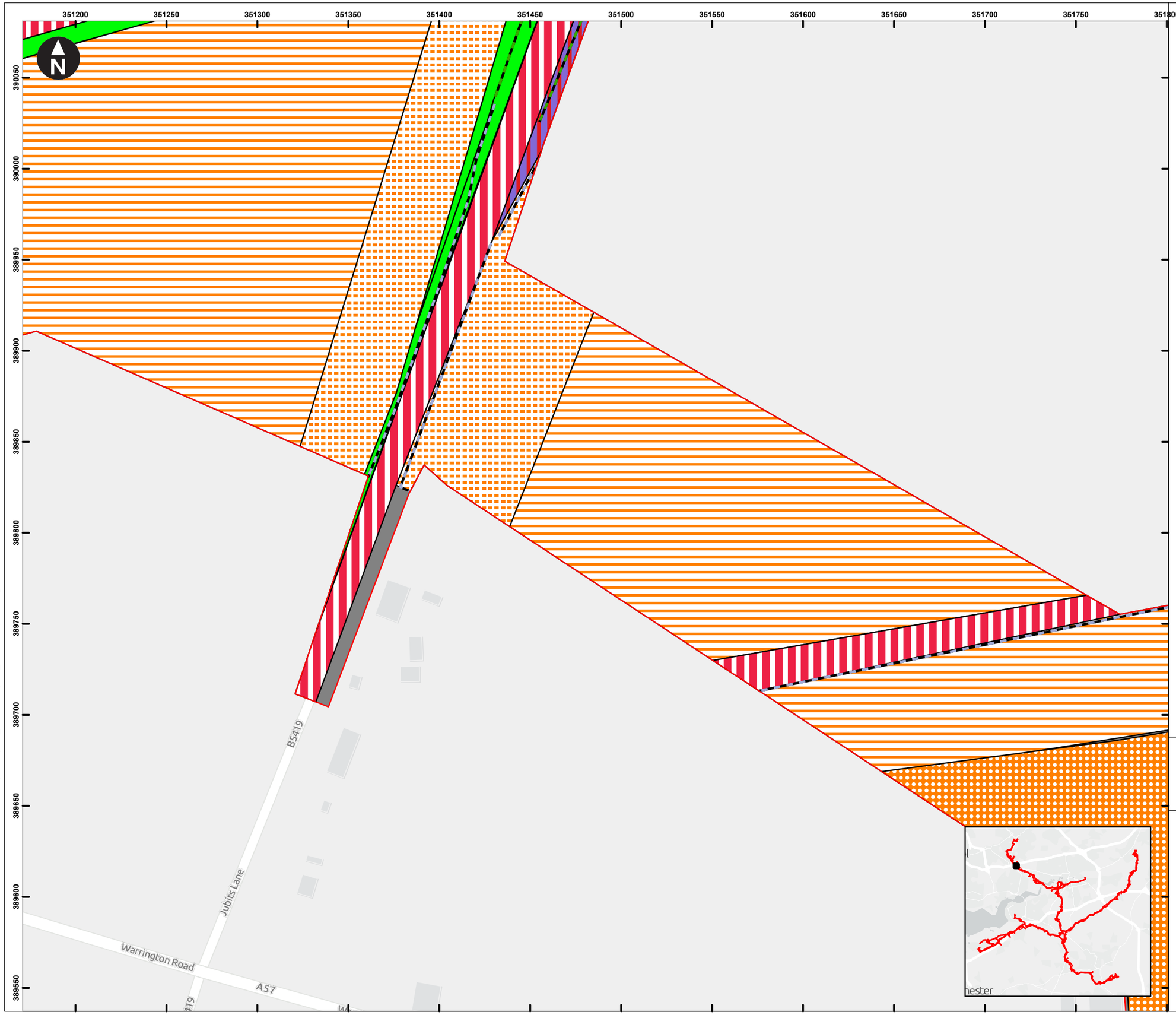
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 133 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3d - Bramble scrub
- c1a6 - Arable margins sown with wild flowers or a pollen and nectar mix
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

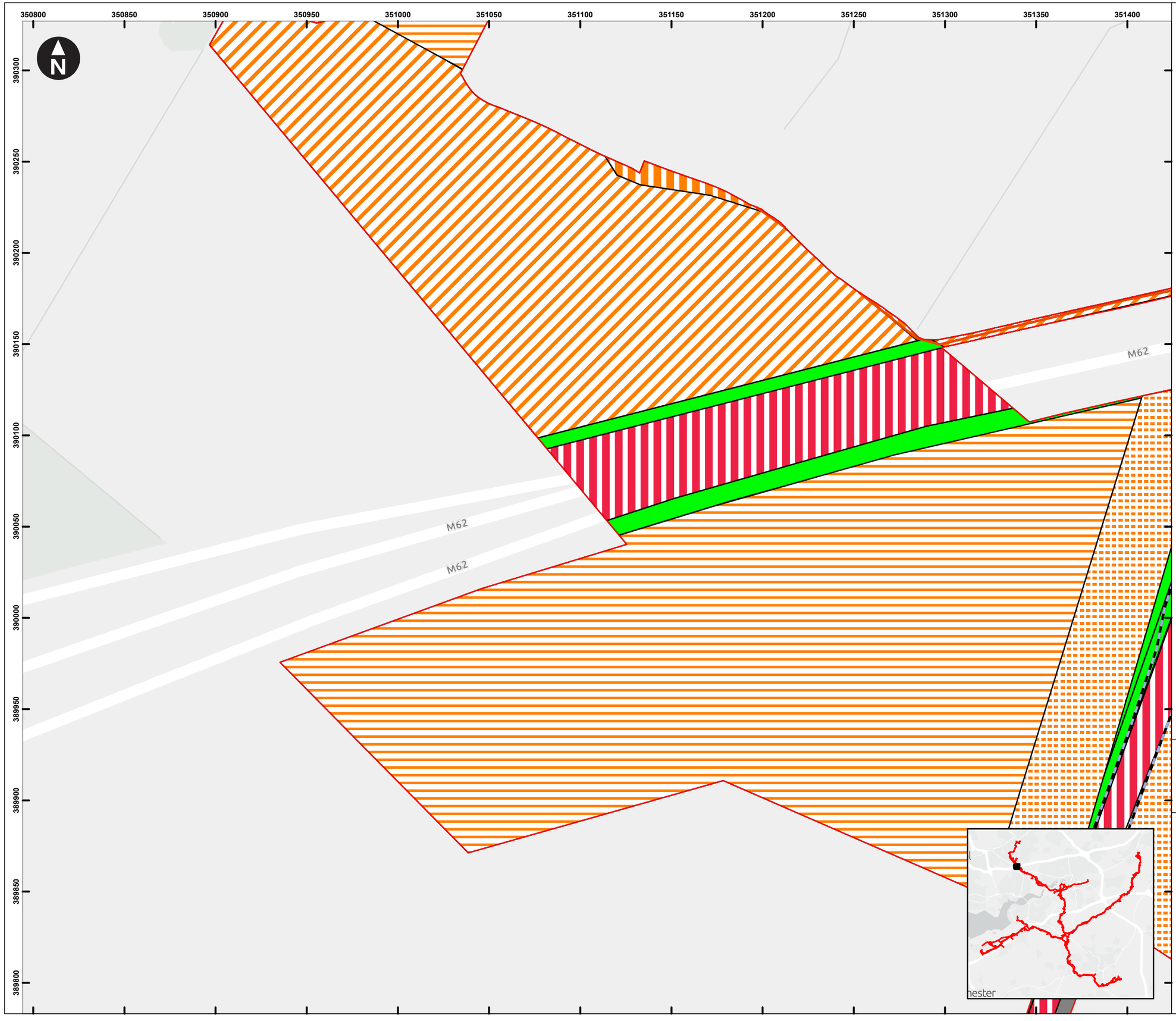
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 134 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1a6 - Arable margins sown with wild flowers or a pollen and nectar mix
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 135 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3d - Bramble scrub
- c1 - Arable and horticulture
- c1a6 - Arable margins sown with wild flowers or a pollen and nectar mix
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 136 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1 - Arable and horticulture
- u1b - Developed land, sealed surface
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

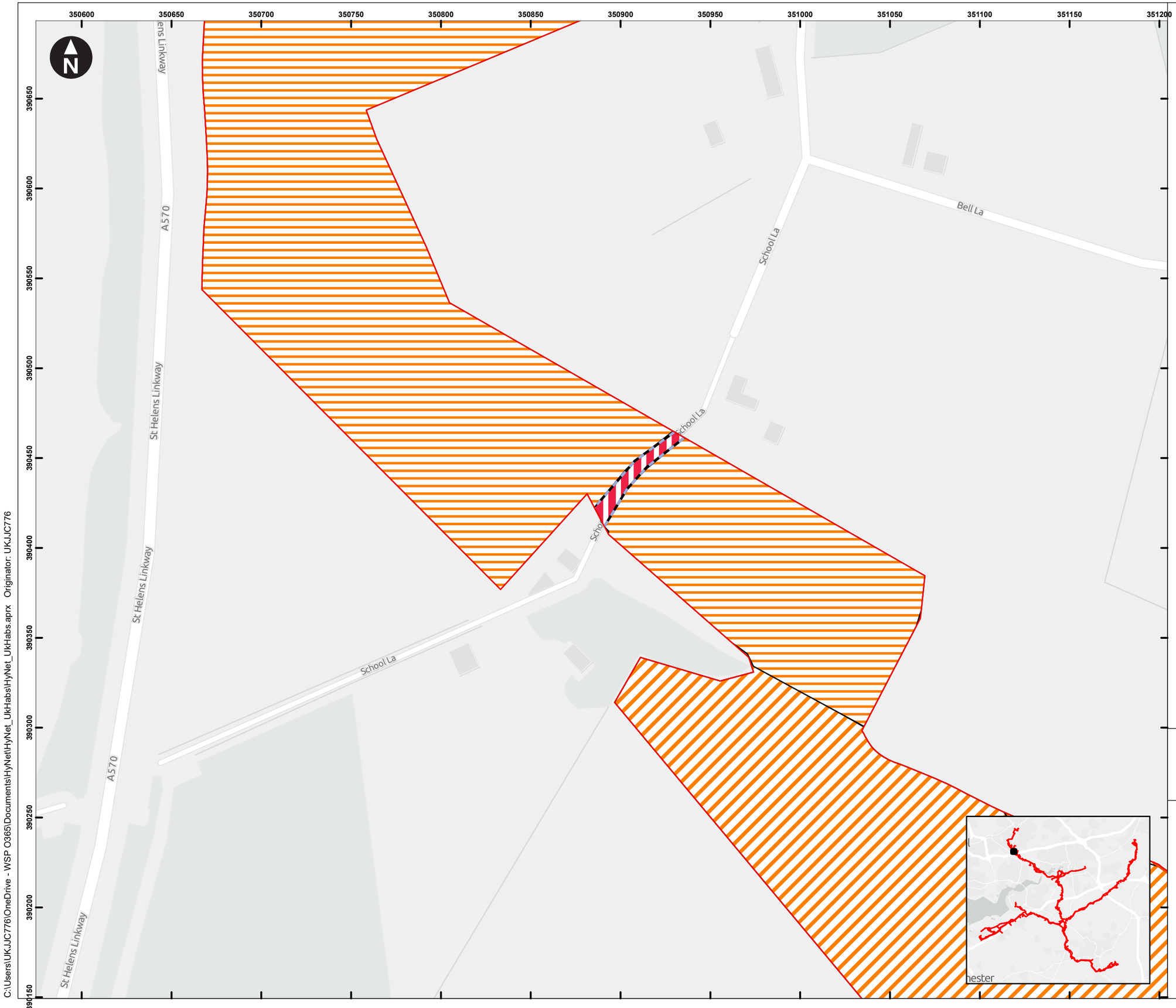
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 137 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

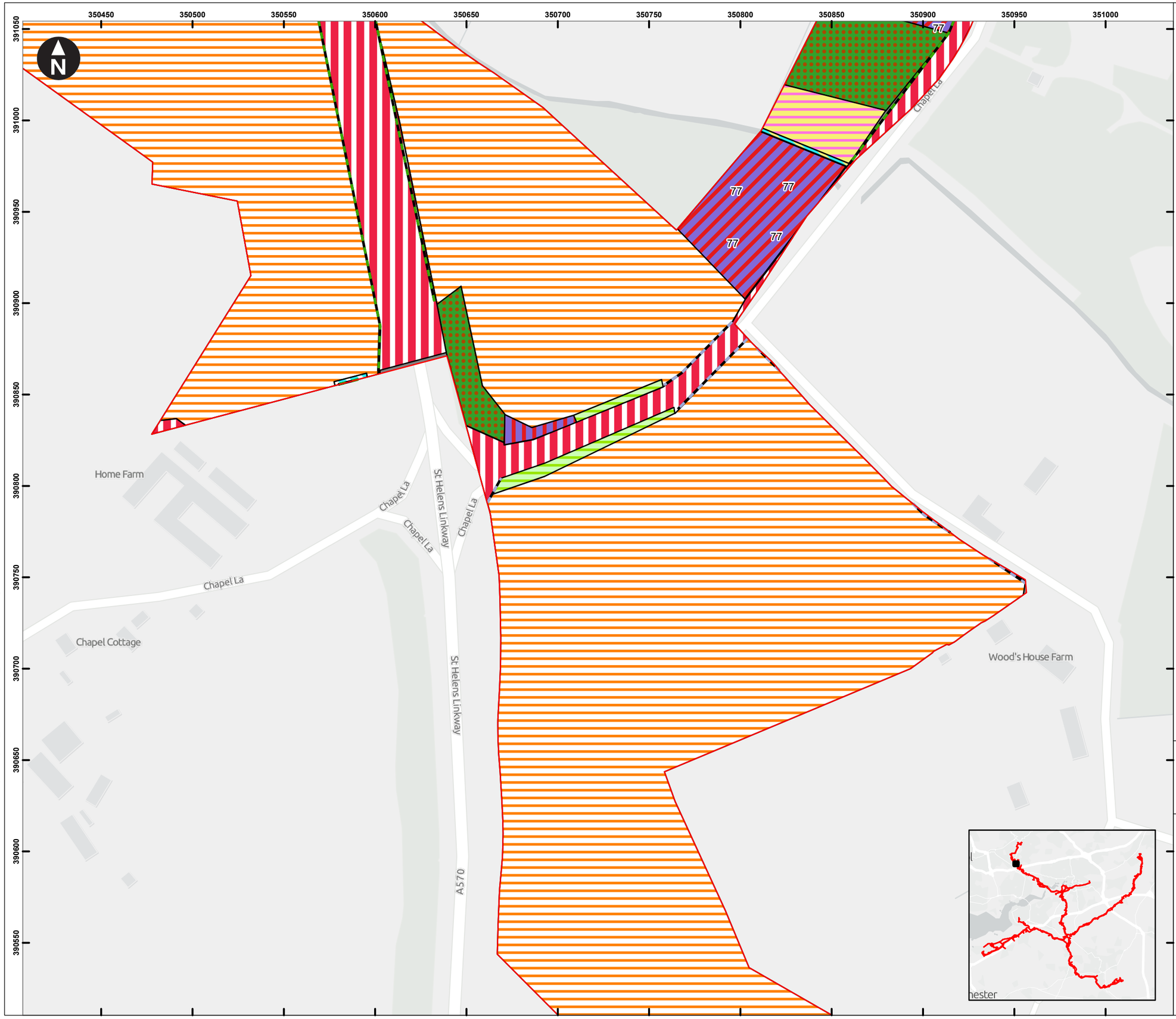
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 138 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3 - Dense scrub
- h3d - Bramble scrub
- f2e - Reedbeds
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 139 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3 - Dense scrub
- h3d - Bramble scrub
- f2e - Reedbeds
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 140 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- h3 - Dense scrub
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 141 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 142 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- c1d - Non-cereal crops
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

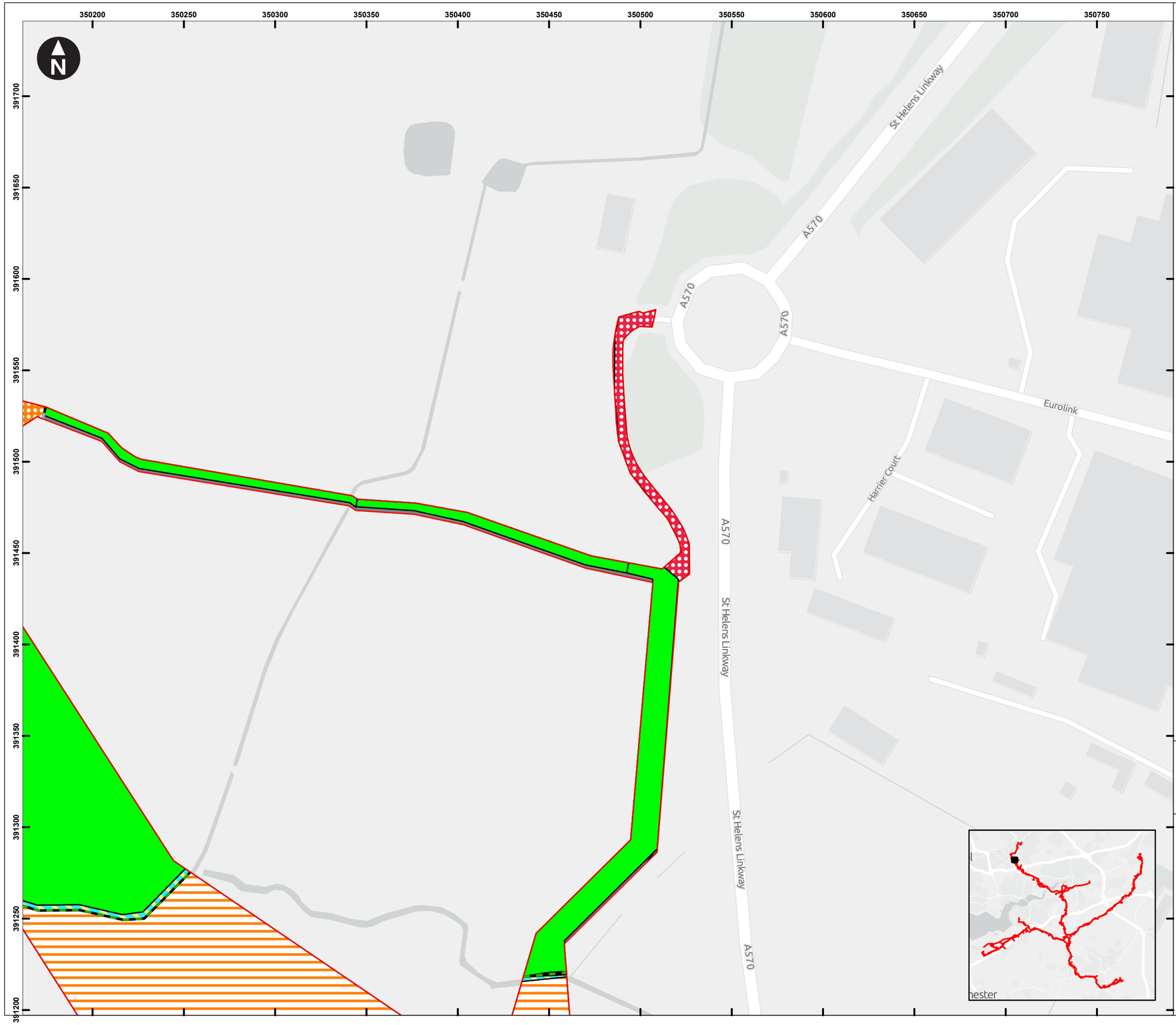
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 143 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- h3d - Bramble scrub
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 144 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3d - Bramble scrub
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 145 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

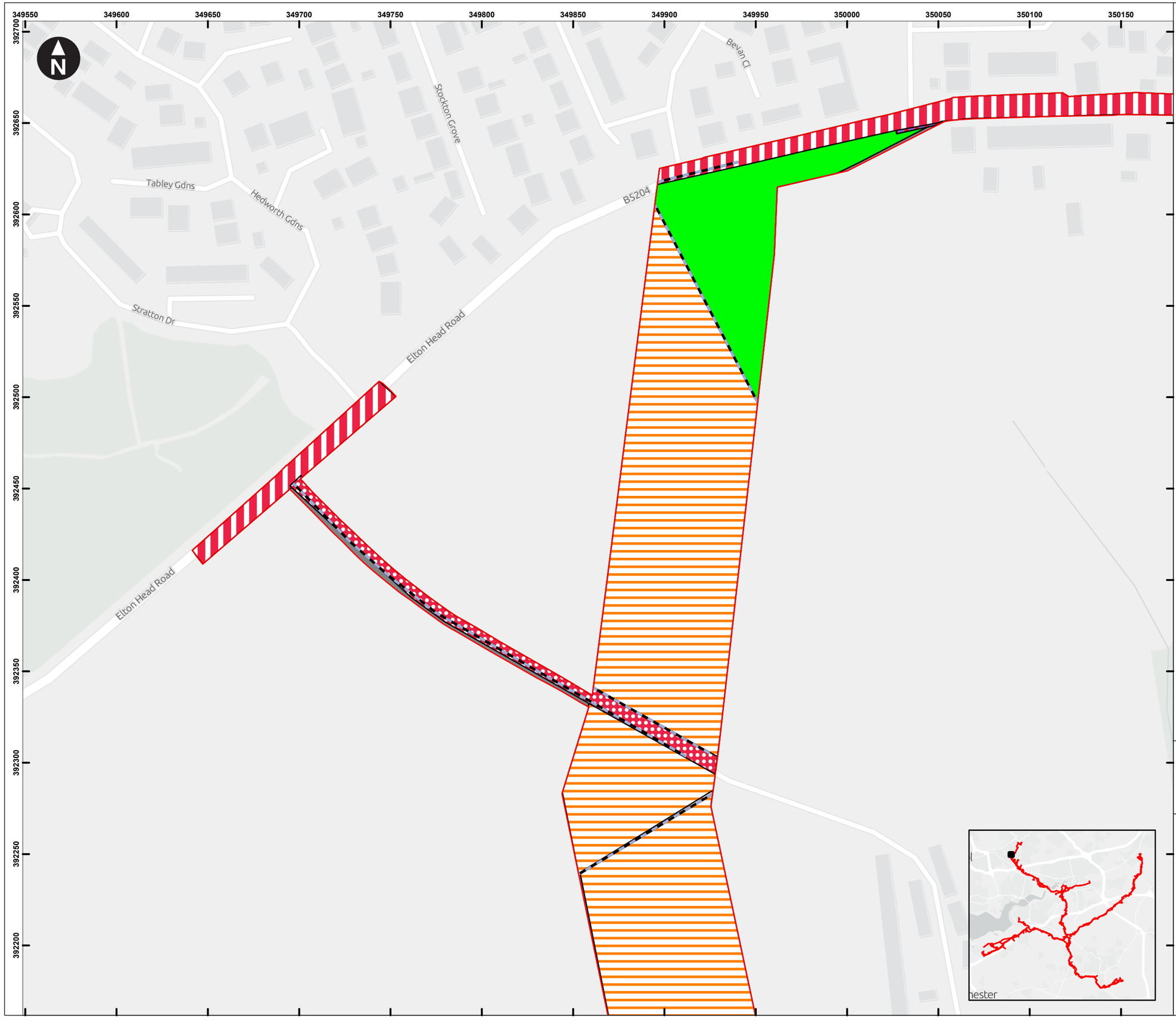
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 146 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3d - Bramble scrub
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

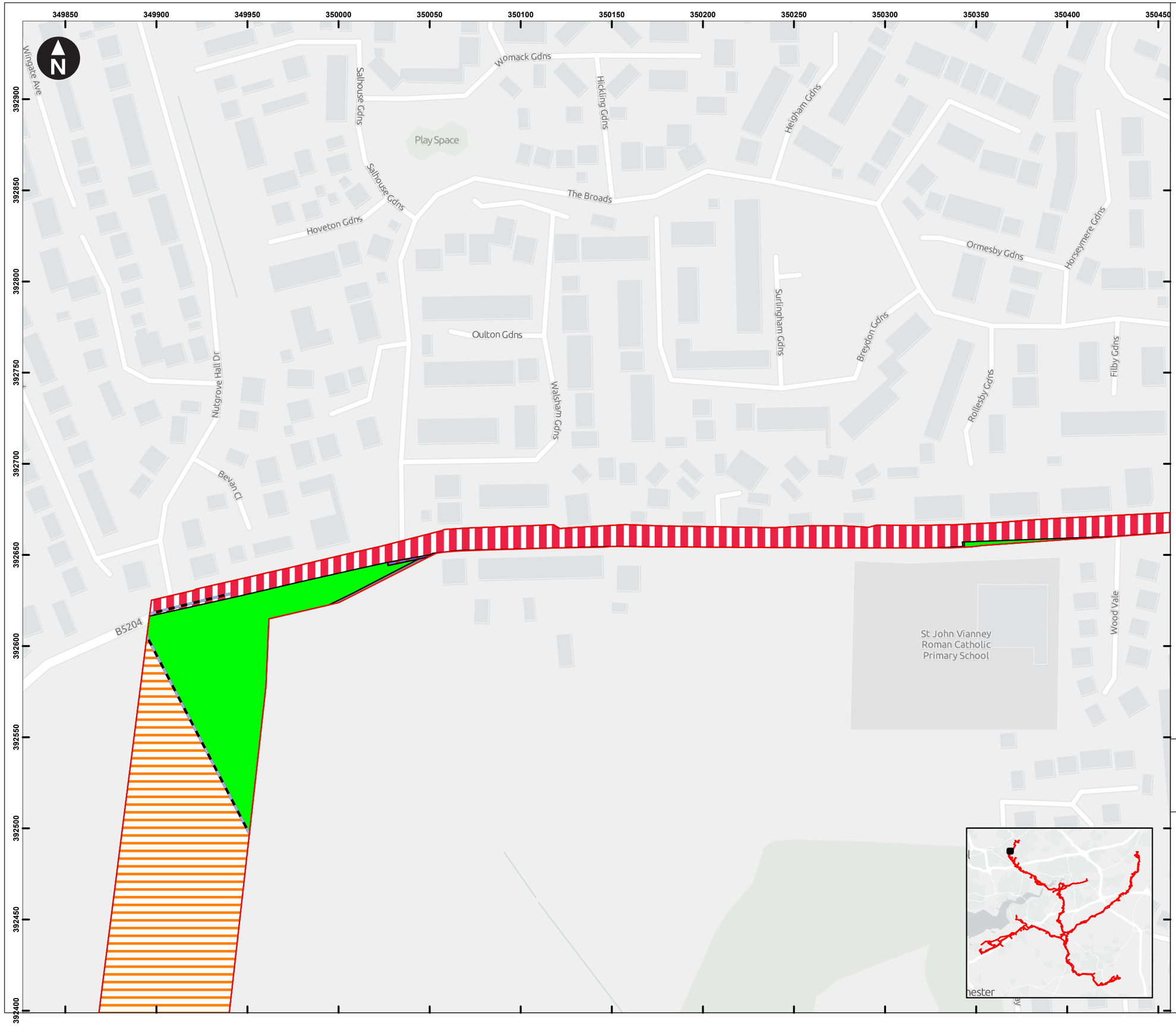
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 147 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3d - Bramble scrub
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

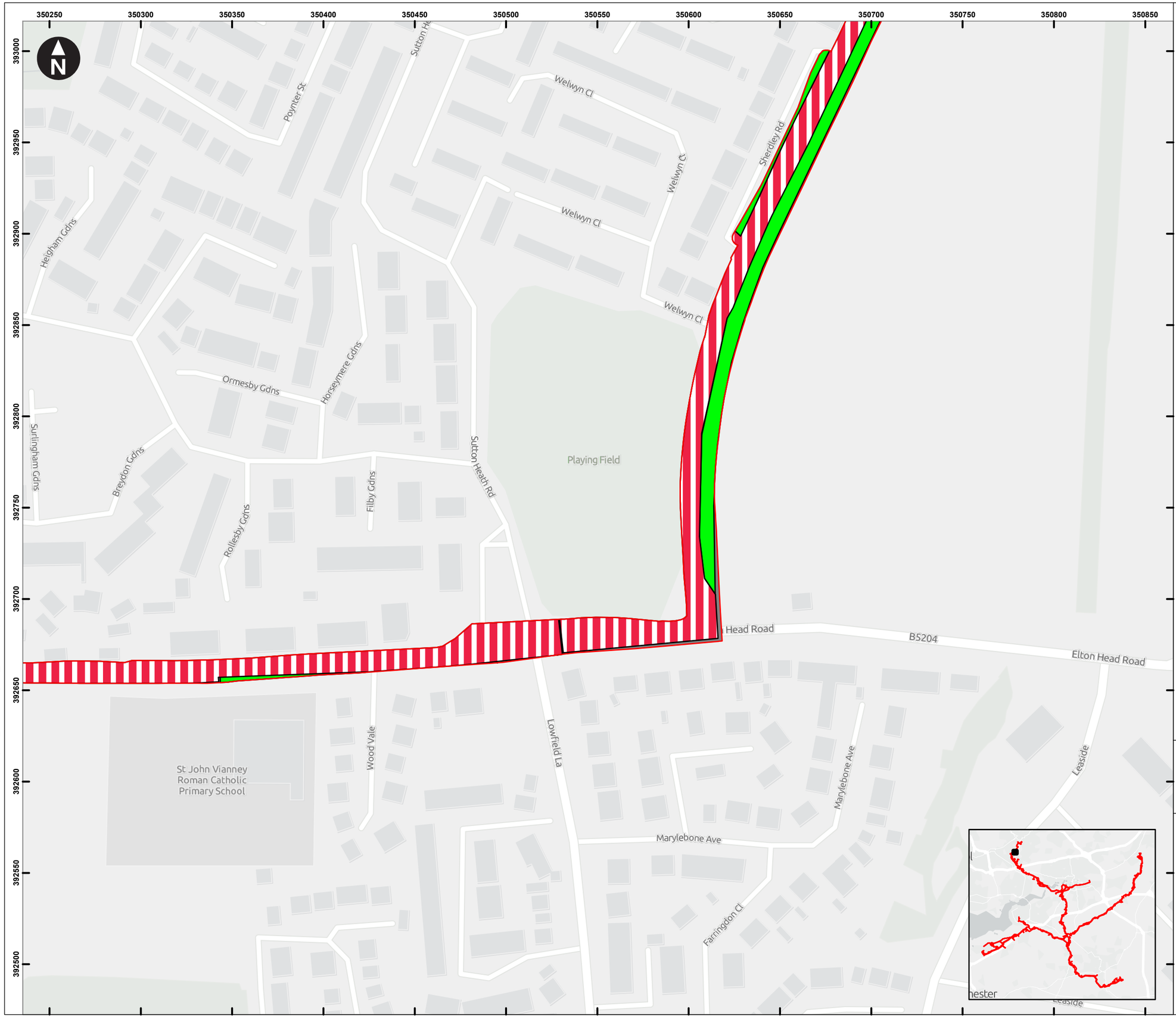
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 148 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

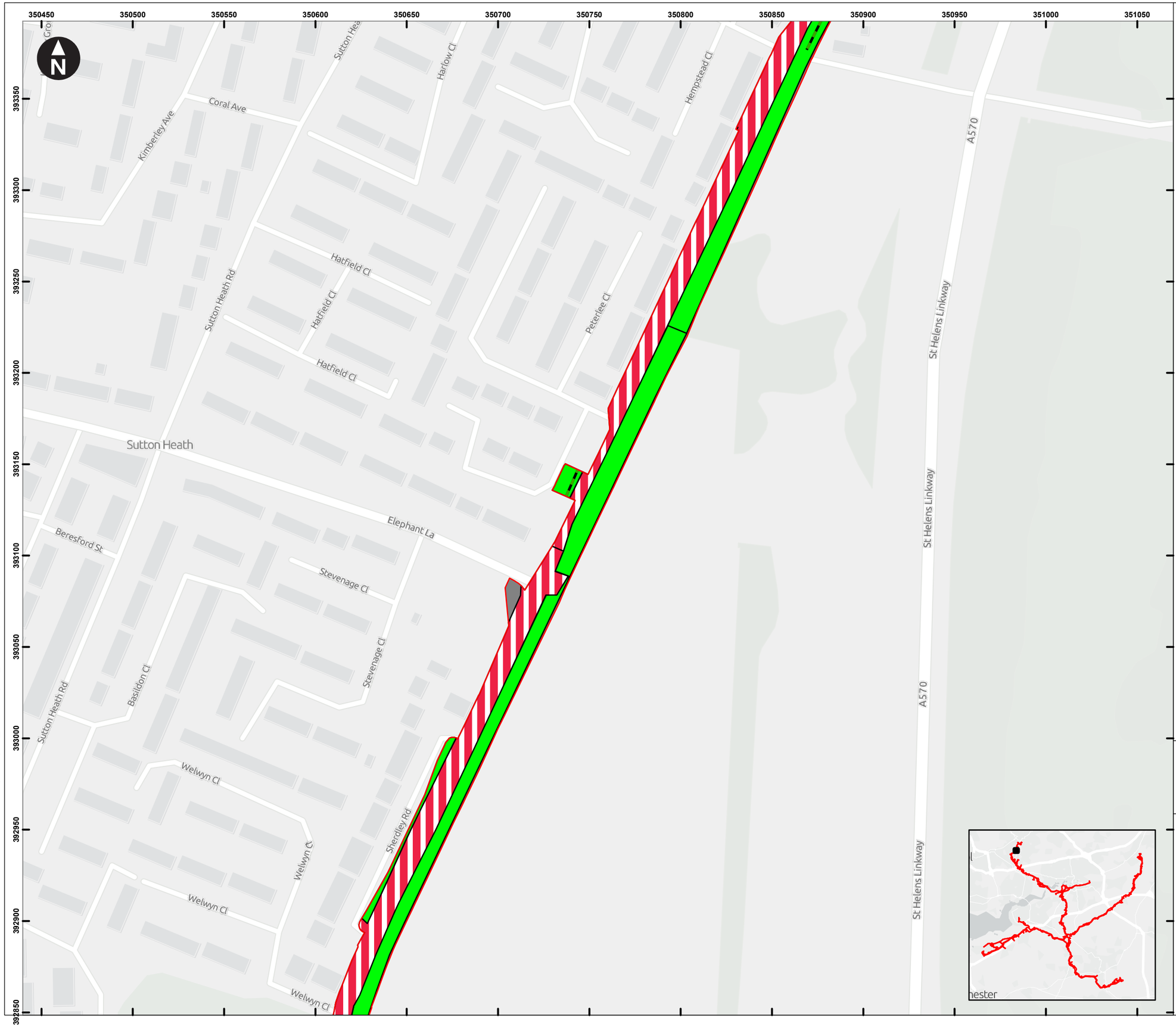
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 149 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- w1g6 - Line of trees

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 151 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 152 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 153 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 154 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3a - Blackthorn scrub
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

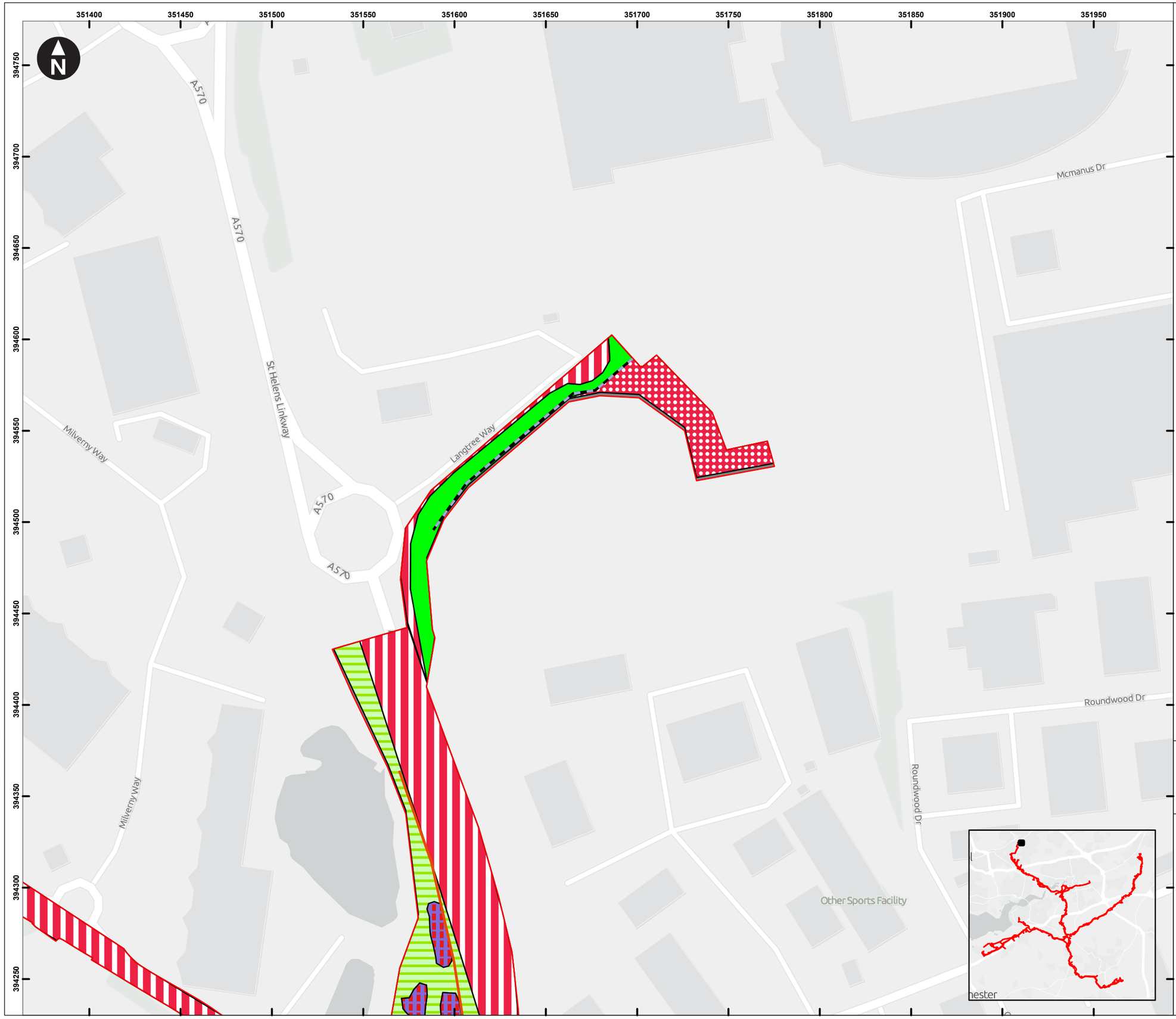
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 155 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3h - Mixed scrub
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

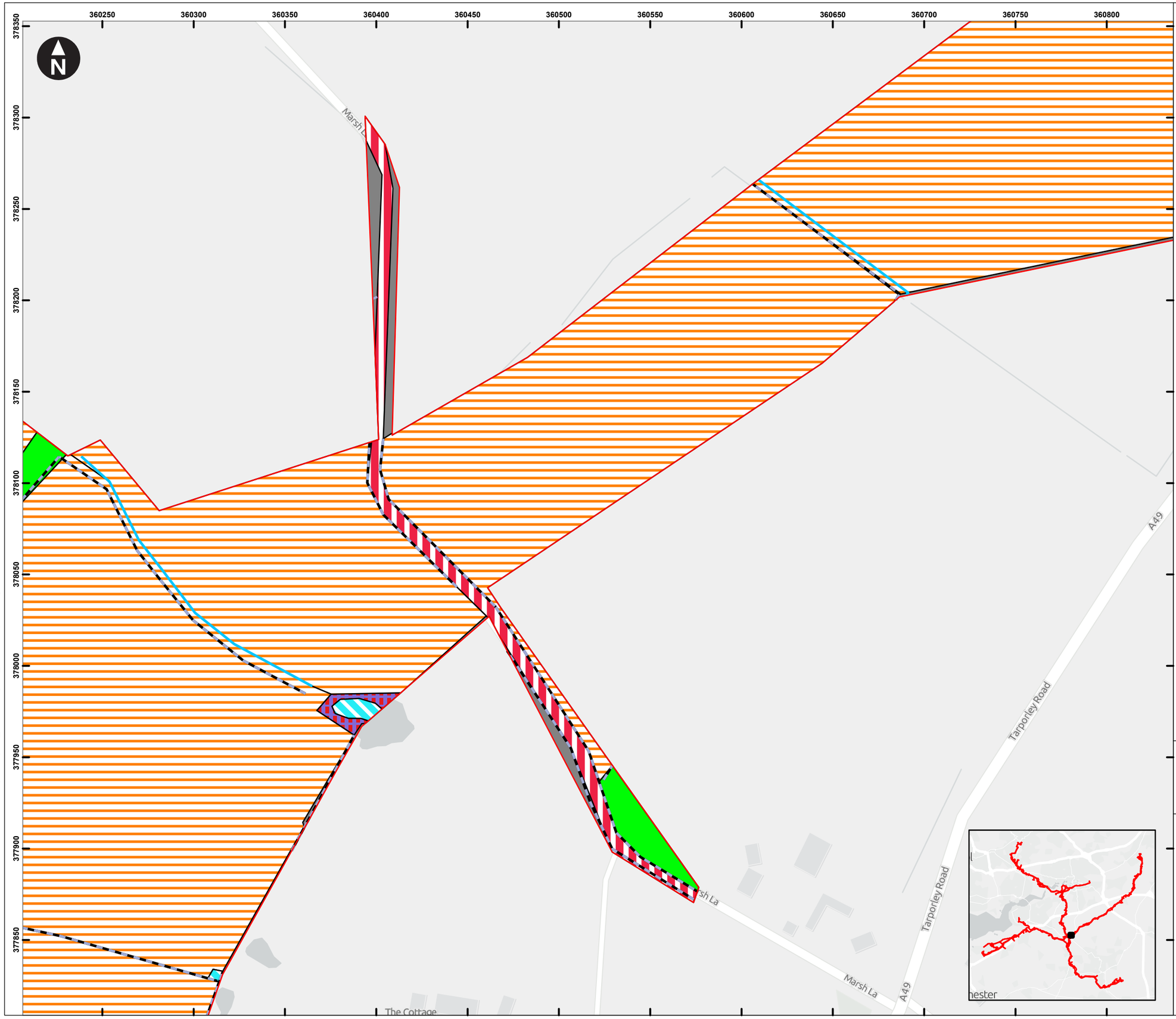
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 156 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 157 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

360550 360600 360650 360700 360750 360800 360850 360900 360950 361000 361050 361100

378550 378500 378450 378400 378350 378300 378250 378200 378150 378100 378050

N

Whitley Brook

A49

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 158 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

360900 360950 361000 361050 361100 361150 361200 361250 361300 361350 361400 361450 361500

378650 378600 378550 378500 378450 378400 378350 378300 378250 378200 378150

N

Whitley Hall Cottages

Red La

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 159 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

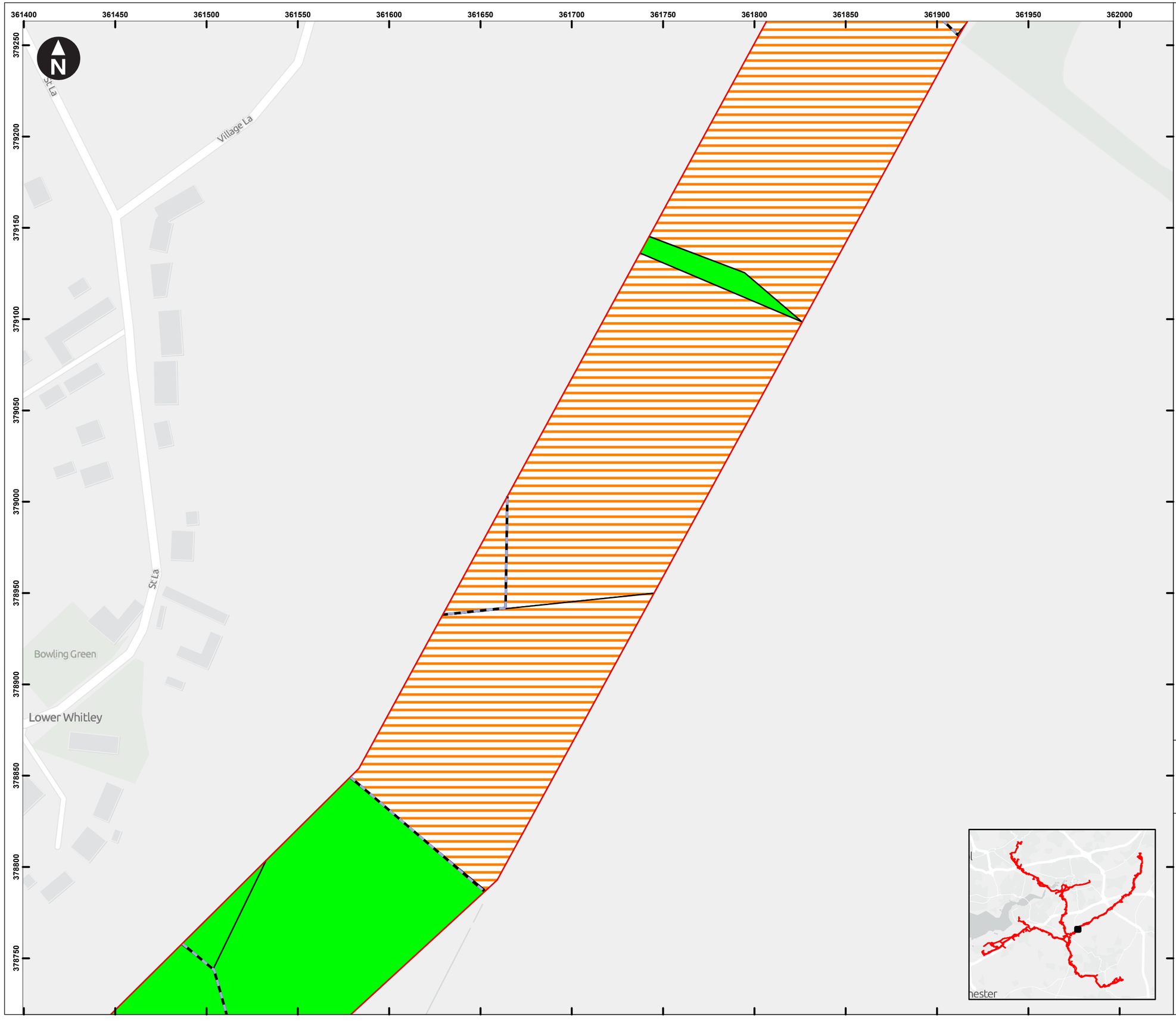
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 160 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 161 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

361650 361700 361750 361800 361850 361900 361950 362000 362050 362100 362150 362200

379600 379550 379500 379450 379400 379350 379300 379250 379200 379150

Back La

Back La

Poachers Lodge

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

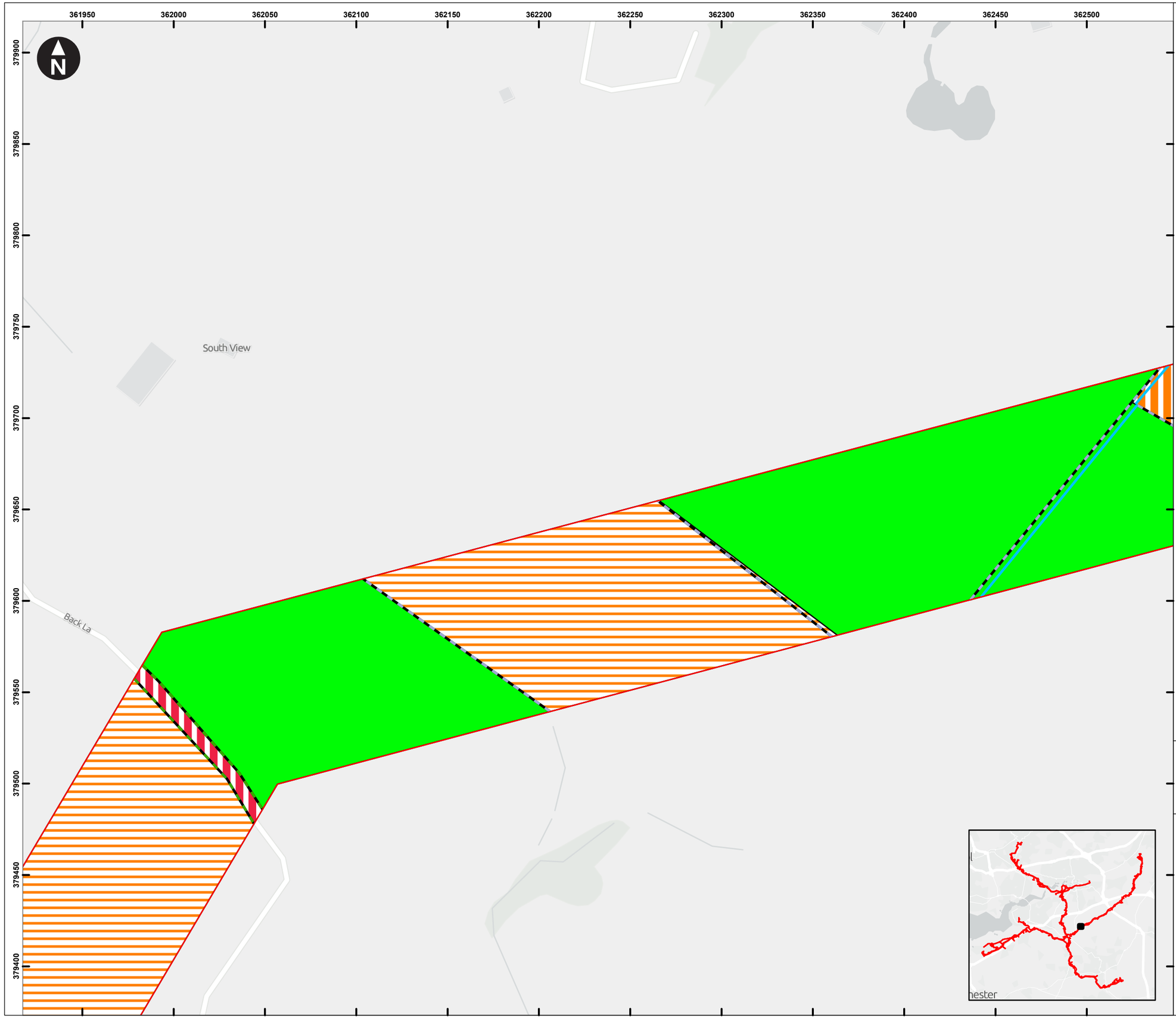
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 162 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 163 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

362400 362450 362500 362550 362600 362650 362700 362750 362800 362850 362900 362950 363000

380050 380000 379950 379900 379850 379800 379750 379700 379650 379600 379550

N

Rouge Farm

Old Mill La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 164 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 165 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

363300 363350 363400 363450 363500 363550 363600 363650 363700 363750 363800 363850

380350 380300 380250 380200 380150 380100 380050 380000 379950 379900 379850

N

Knutsford Rd

Knutsford Rd

A559

Fogg's La

Reed La

eed La

48

Knutsford Rd

Mag La

North

hester

Key

- Preliminary Order Limits
- h3h - Mixed scrub
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 166 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

363700 363750 363800 363850 363900 363950 364000 364050 364100 364150 364200 364250 364300

380600 380550 380500 380450 380400 380350 380300 380250 380200 380150 380100

N

Reed La

Ashwood Tree Farm

Reed La

Reed La

48

Key

- Preliminary Order Limits
- h3h - Mixed scrub
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 167 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNetHyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

364050 364100 364150 364200 364250 364300 364350 364400 364450 364500 364550 364600

380950 380900 380850 380800 380750 380700 380650 380600 380550 380500 380450

N

Reed La

Barber's La

Key

- Preliminary Order Limits
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

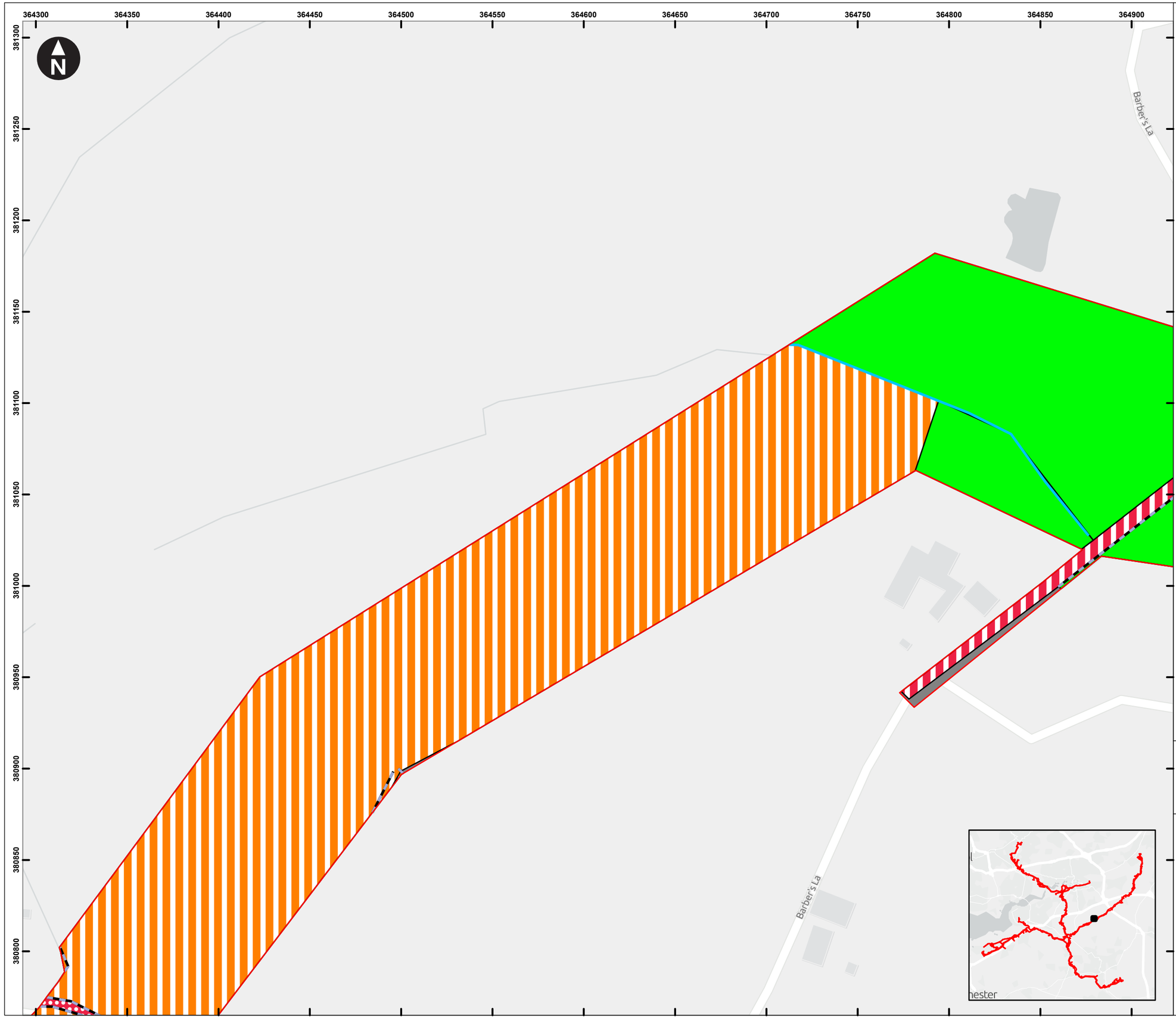
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 168 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNetHyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 169 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3d - Bramble scrub
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 170 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

365100 365150 365200 365250 365300 365350 365400 365450 365500 365550 365600 365650 365700

381400 381350 381300 381250 381200 381150 381100 381050 381000 380950

Barber's La

Pools Platt La

48

Gale Brook Cottage

Pools Platt La

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

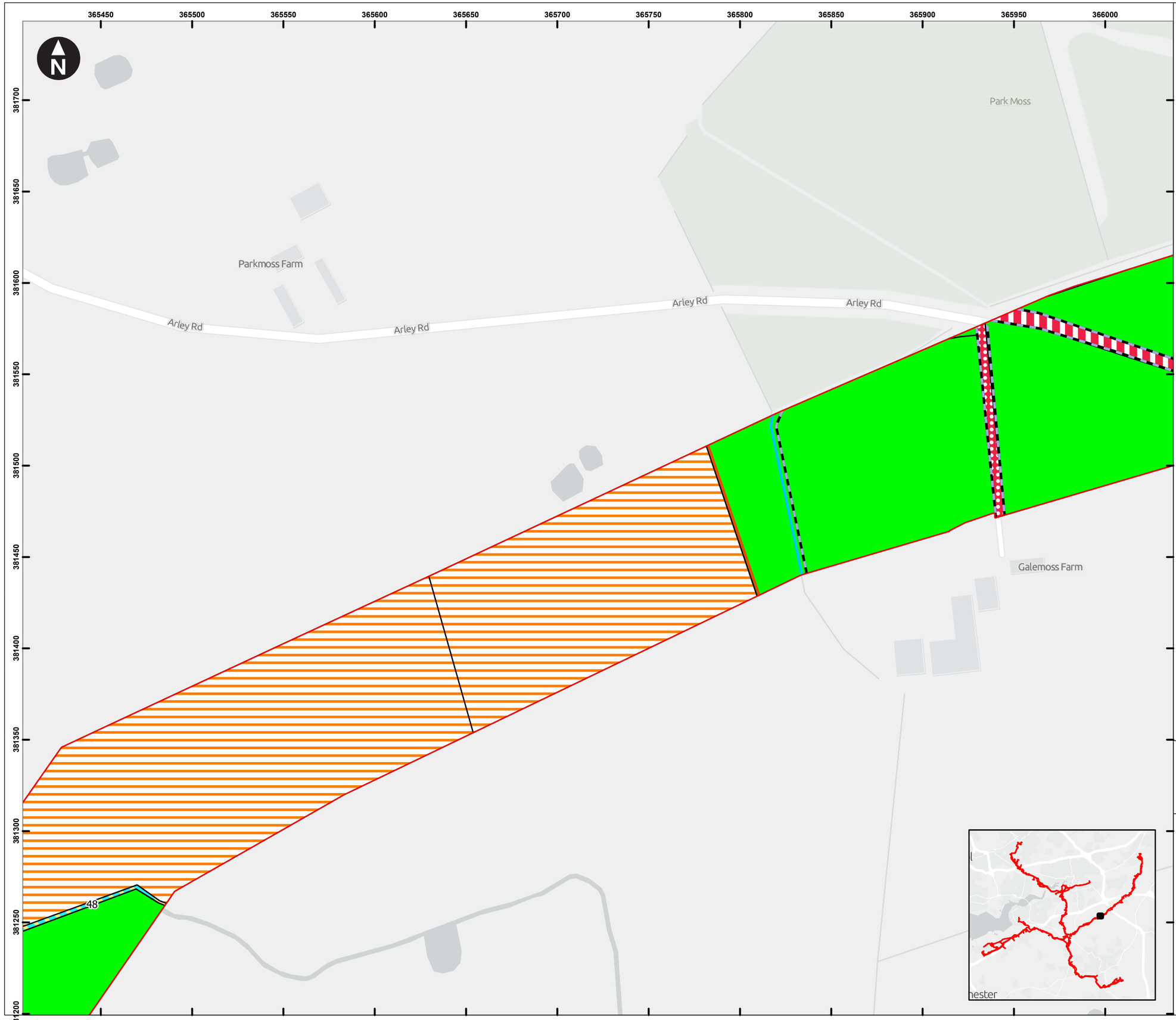
Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 171 of 265

October 2024



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 172 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

365900 365950 366000 366050 366100 366150 366200 366250 366300 366350 366400 366450 366500

381900 381850 381800 381750 381700 381650 381600 381550 381500 381450 381400

N

Park Moss

Galemoss Farm

Arley Rd

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 173 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

366350 366400 366450 366500 366550 366600 366650 366700 366750 366800 366850 366900 366950

382100 382050 382000 381950 381900 381850 381800 381750 381700 381650 381600

N

Caldwell's Gate La

115

115

Caldwell's Gate La

Crowley Grange

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 174 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

366650 366700 366750 366800 366850 366900 366950 367000 367050 367100 367150 367200

382500 382450 382400 382350 382300 382250 382200 382150 382100 382050 382000

N

115

115

ell's Gate La

hester

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- h3a - Blackthorn scrub
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 175 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

366900 366950 367000 367050 367100 367150 367200 367250 367300 367350 367400 367450 367500

382850 382800 382750 382700 382650 382600 382550 382500 382450 382400 382350

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

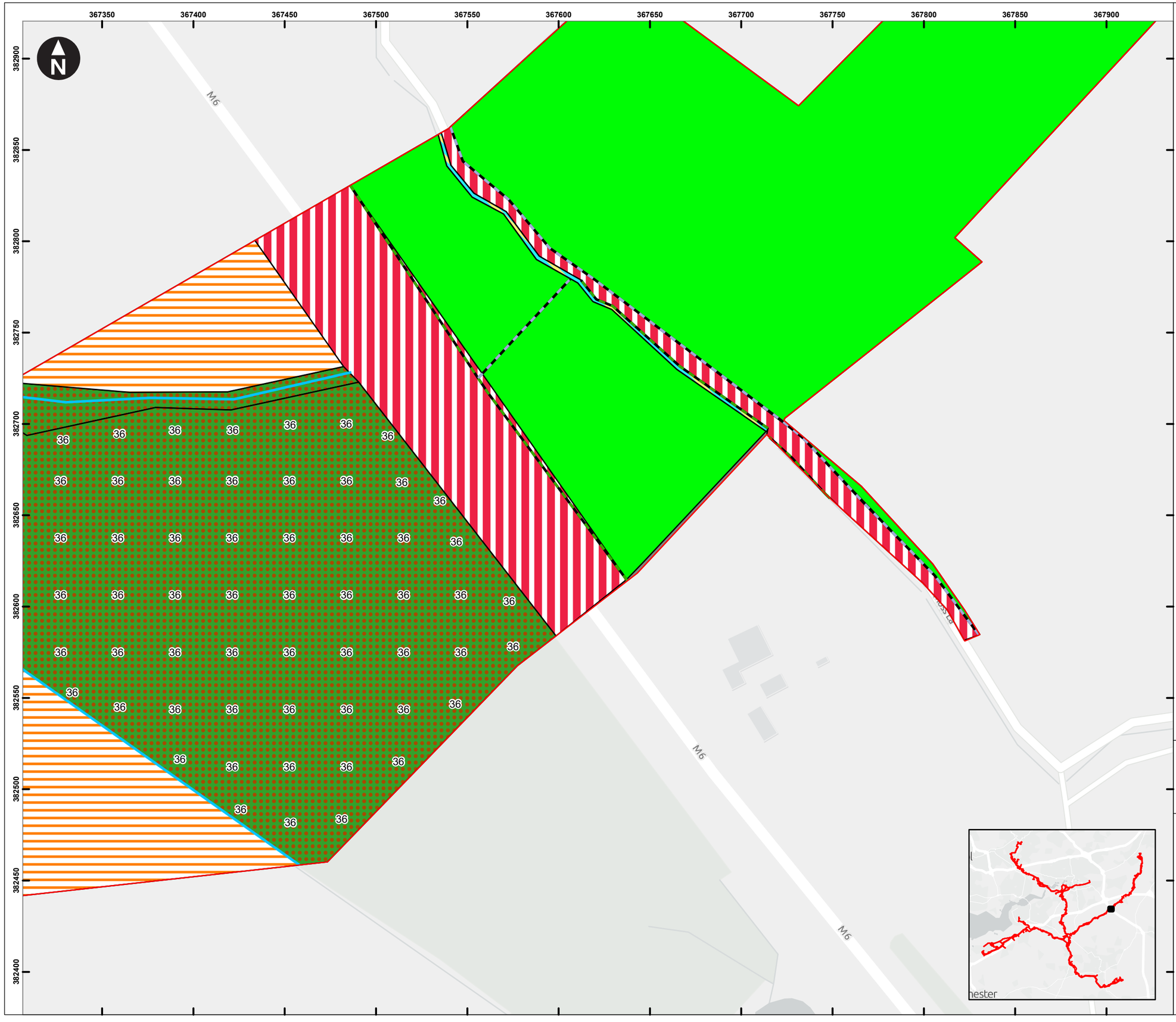
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 176 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 177 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNetHyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

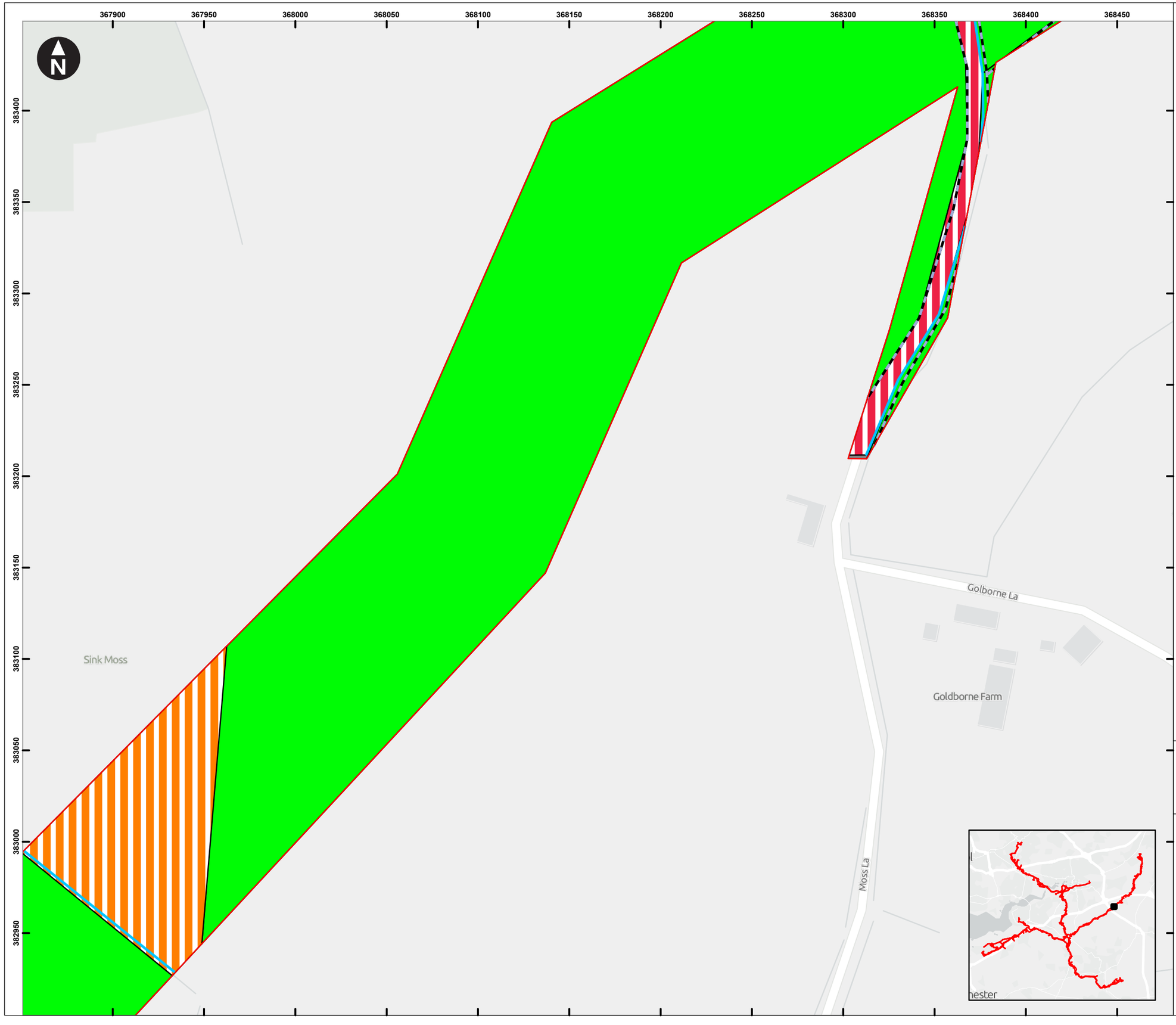
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 178 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 179 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNetHyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

368050 368100 368150 368200 368250 368300 368350 368400 368450 368500 368550 368600 368650

383750 383700 383650 383600 383550 383500 383450 383400 383350 383300 383250

N

Moss La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

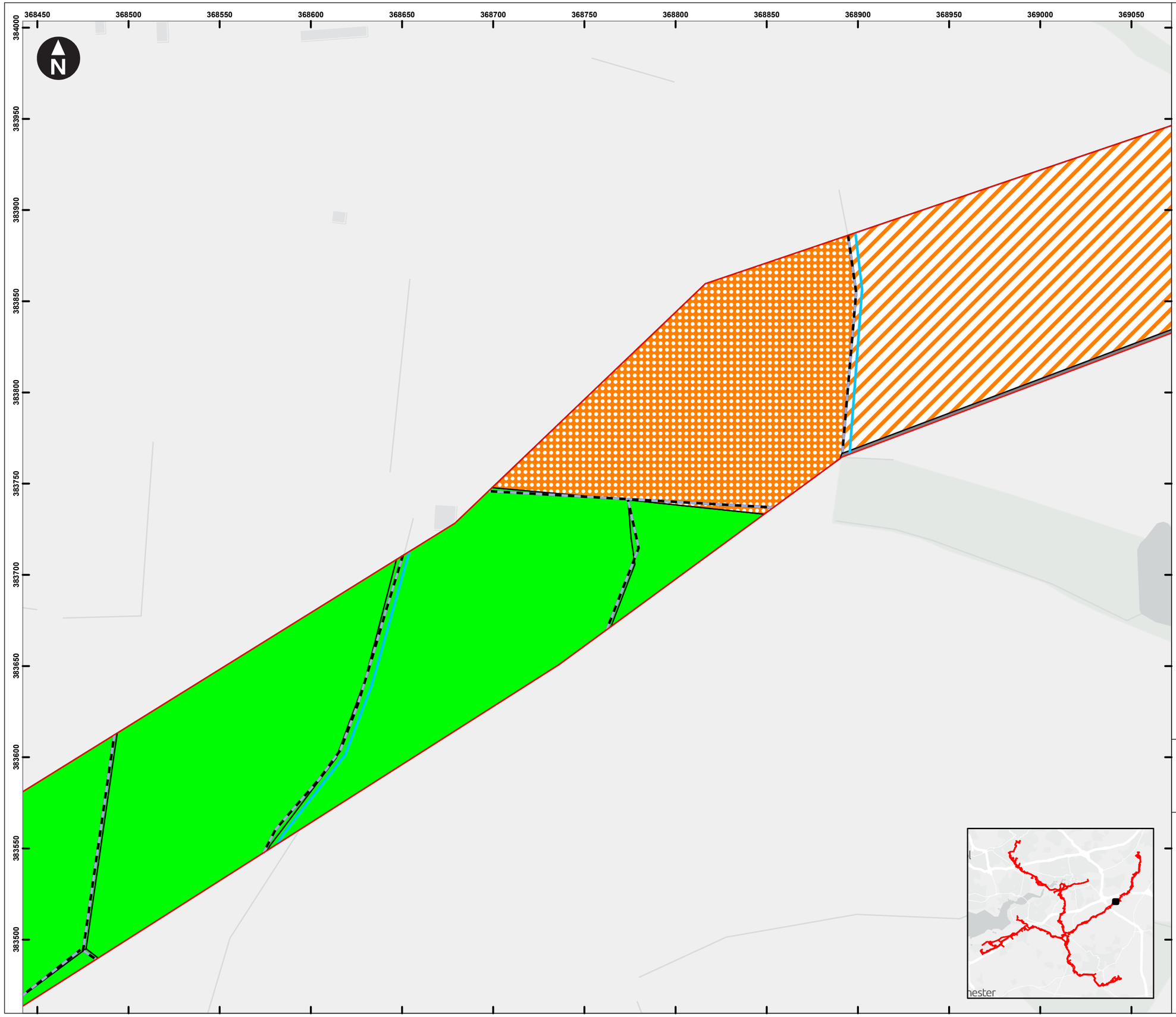
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 180 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 181 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

368850 368900 368950 369000 369050 369100 369150 369200 369250 369300 369350 369400 369450

384200 384150 384100 384050 384000 383950 383900 383850 383800 383750 383700

N

Sworton Heath

A50

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

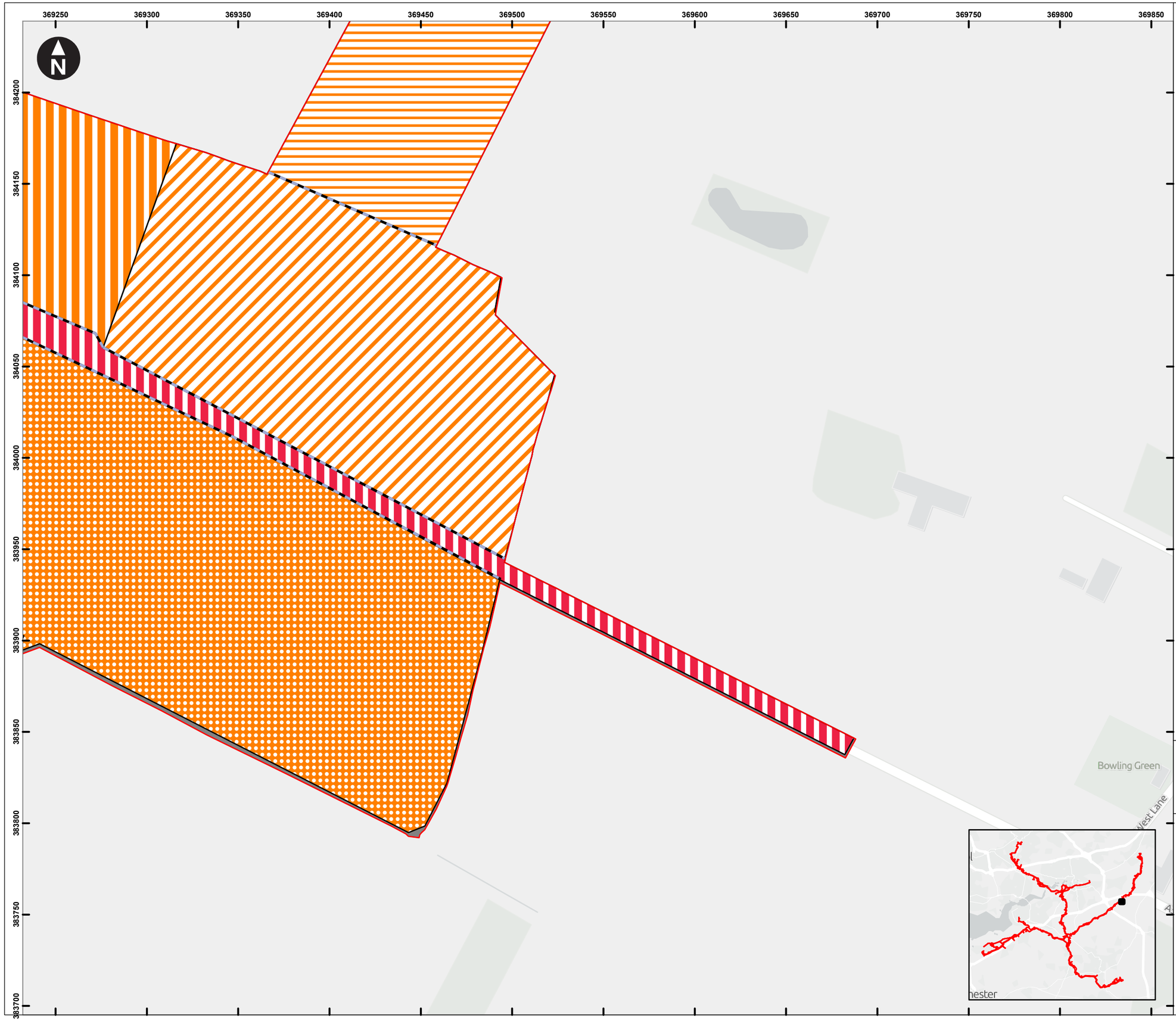
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 182 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNetHyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 183 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

369150 369200 369250 369300 369350 369400 369450 369500 369550 369600 369650 369700

384550 384500 384450 384400 384350 384300 384250 384200 384150 384100 384050

N

Crabtree La

Lilac Farm

Crabtree La

Crabtree La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

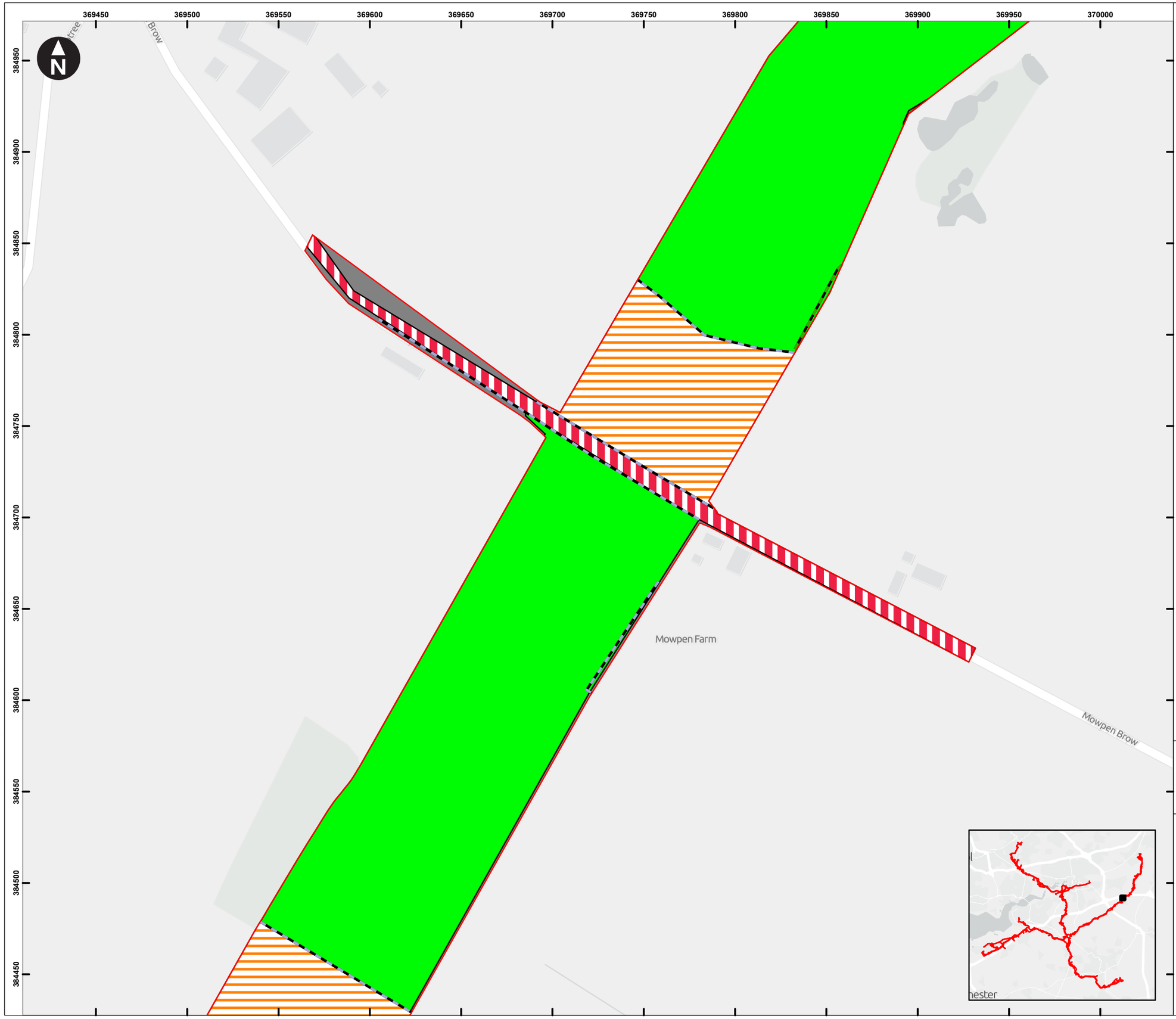
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 184 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 185 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 186 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g3c5 - Arrhenatherum neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- u1b5 - Buildings
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 187 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

370500 370550 370600 370650 370700 370750 370800 370850 370900 370950 371000 371050 371100

385450 385400 385350 385300 385250 385200 385150 385100 385050 385000 384950

N

Hawthorn Cott

Limetree La

M56

Lime Tree Cottage

16, 17

idfield Farm

Limetree La

Abbey Leys Farm

hester

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1b5 - Buildings
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 188 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

370750 370800 370850 370900 370950 371000 371050 371100 371150 371200 371250 371300 371350

385750 385700 385650 385600 385550 385500 385450 385400 385350 385300 385250

N

Agden Park La

Froghall La

Hawthorn Cott

Woodiers Farm

hester

M56

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

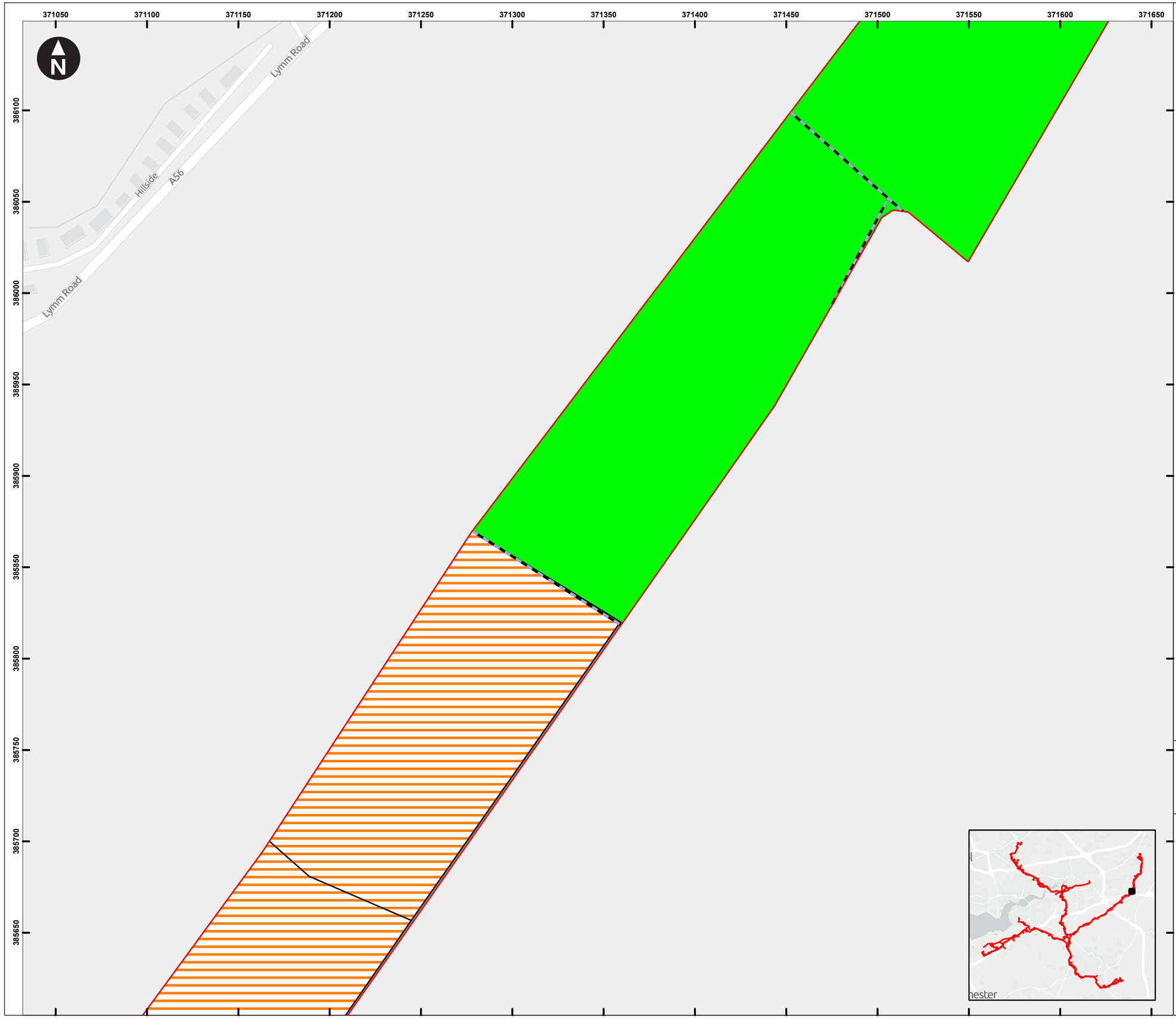
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 189 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

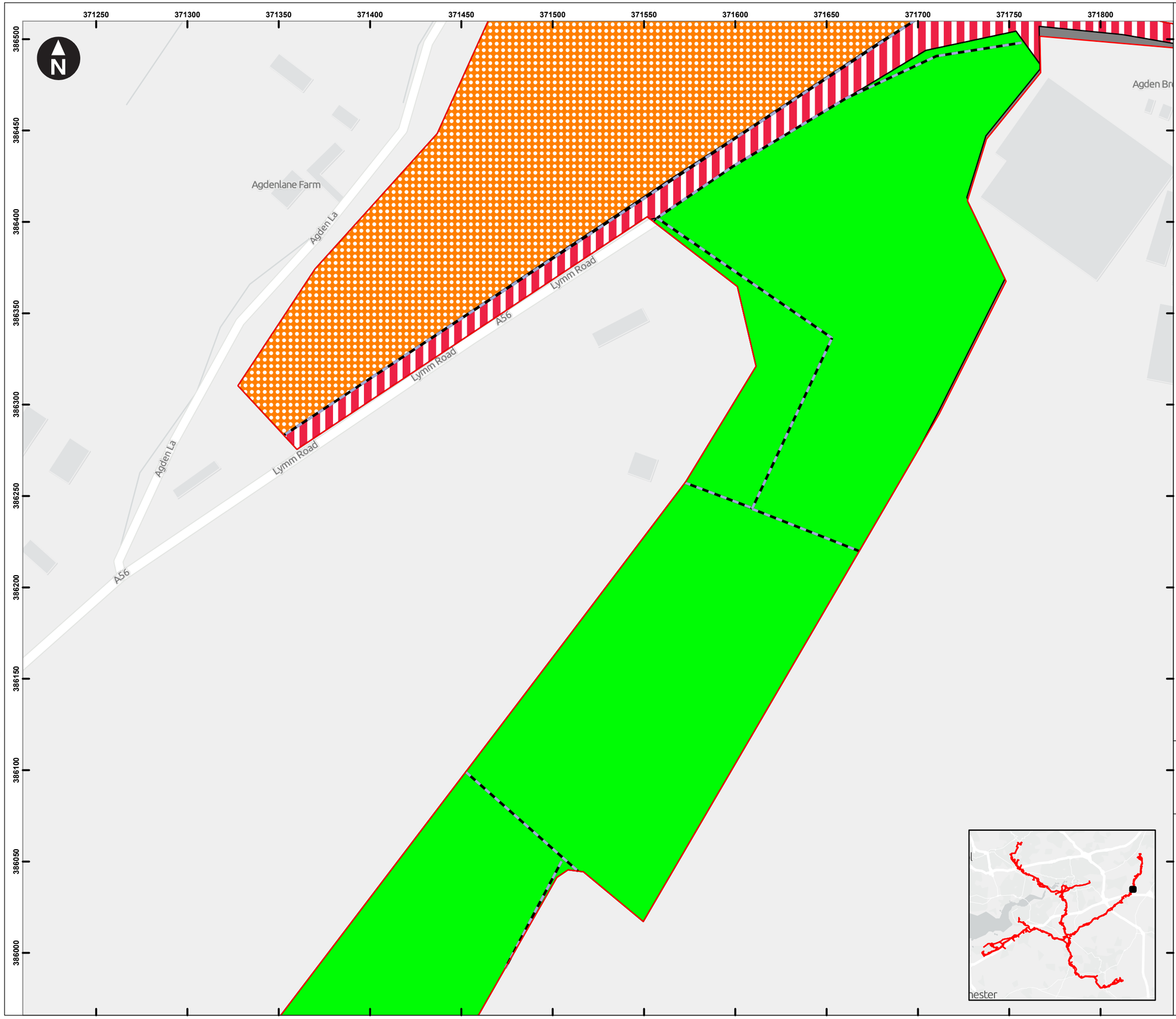
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 190 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

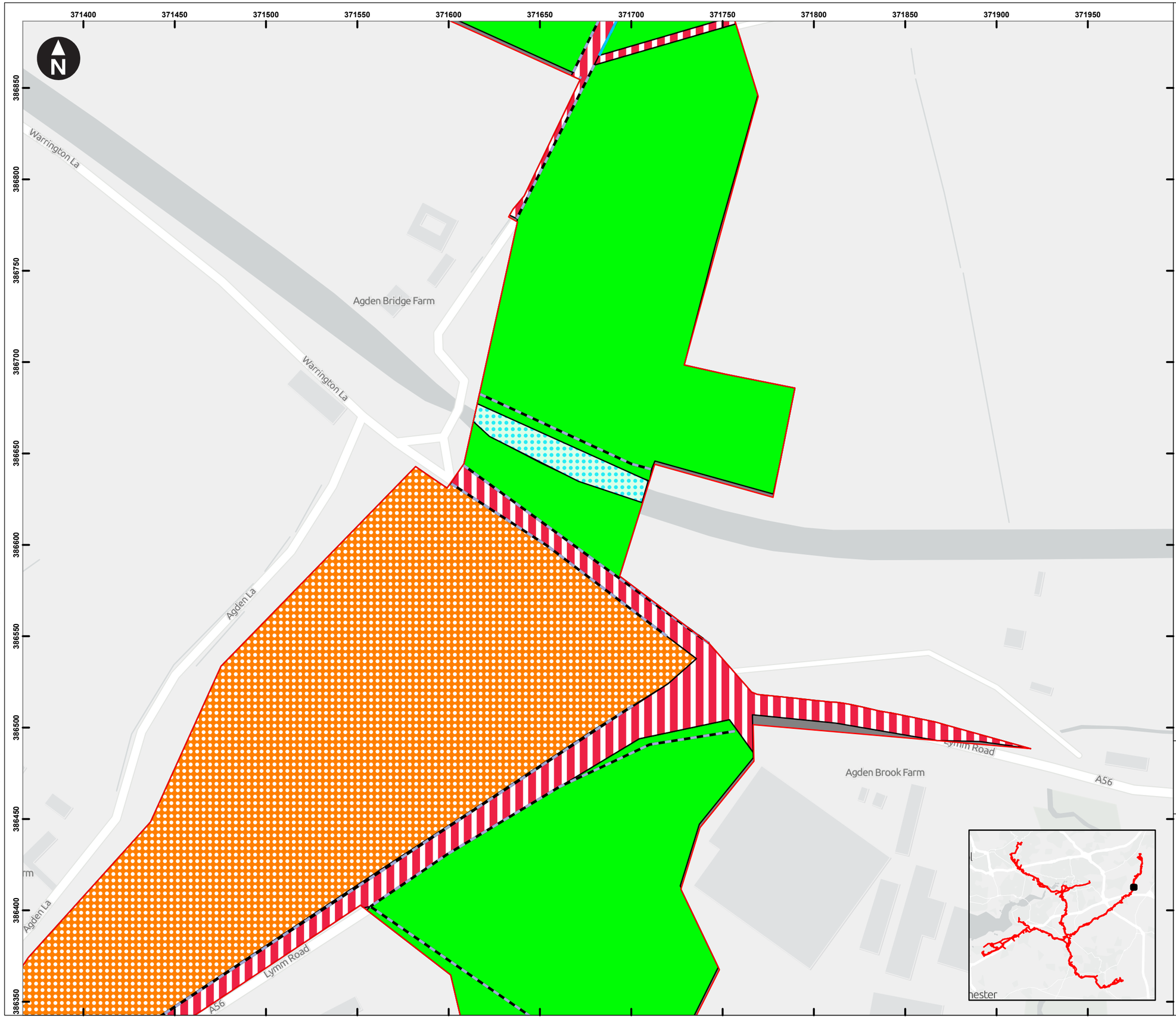
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 191 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1e - Canals
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 192 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 193 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

371350 371400 371450 371500 371550 371600 371650 371700 371750 371800 371850 371900 371950

387600 387550 387500 387450 387400 387350 387300 387250 387200 387150

Rose Cottages

Spring La

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

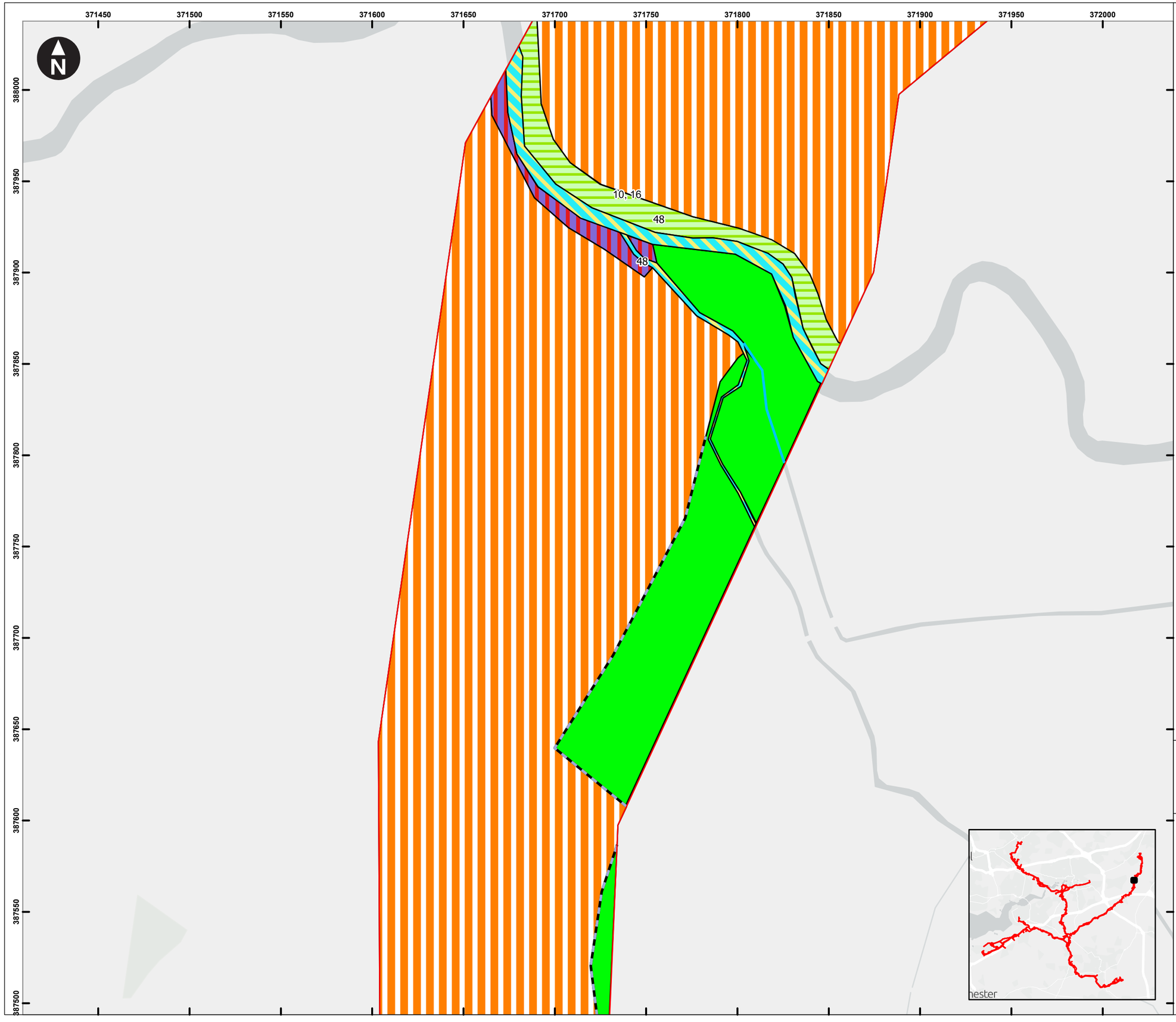
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 194 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- c1b - Temporary grass and clover leys
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 195 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

371650 371700 371750 371800 371850 371900 371950 372000 372050 372100 372150 372200

388400 388350 388300 388250 388200 388150 388100 388050 388000 387950 387900

N

River Bollin

Bams La

48

48

10, 16

10, 16

48

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- r2b - Other rivers and streams
- w1g6 - Line of trees
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

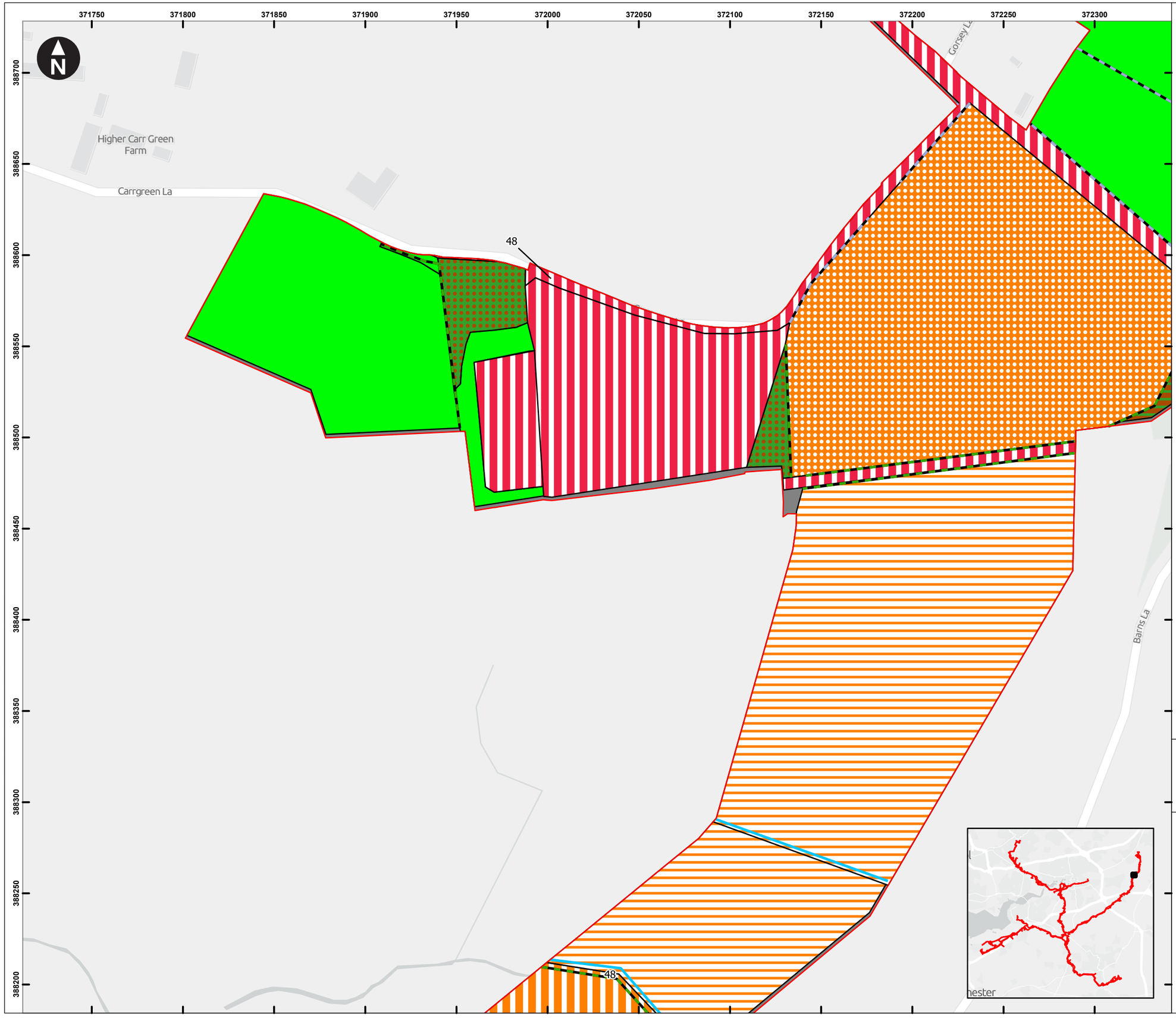
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 196 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 197 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372050 372100 372150 372200 372250 372300 372350 372400 372450 372500 372550 372600 372650

388950 388900 388850 388800 388750 388700 388650 388600 388550 388500 388450

N

B5160

Gorsey La

Gorsey La

Barns La

Barns La

Sawpit St

Sawpit St

B5160

48

17

17

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- w1g - Other woodland, broadleaved
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1 - Built-up areas and gardens
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 198 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372250 372300 372350 372400 372450 372500 372550 372600 372650 372700 372750 372800 372850

389150 389100 389050 389000 388950 388900 388850 388800 388750 388700

N

Gorsey La

Gorsey La

48

17

17

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1d - Non-cereal crops
- u1 - Built-up areas and gardens
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

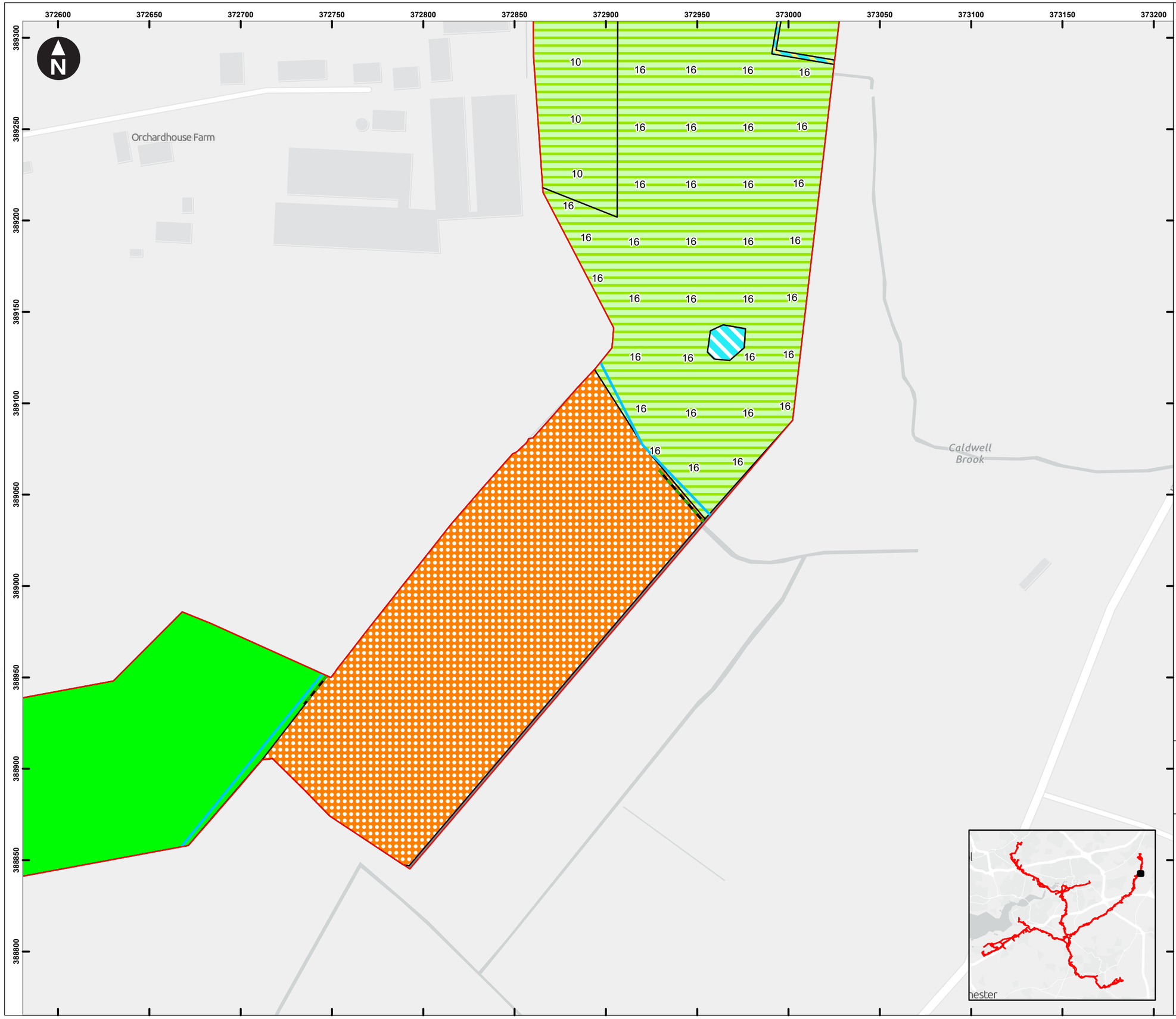
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 199 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1d - Non-cereal crops
- r1a - Eutrophic standing water
- r2b - Other rivers and streams
- w1g6 - Line of trees
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 200 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372650 372700 372750 372800 372850 372900 372950 373000 373050 373100 373150 373200 373250

389650 389600 389550 389500 389450 389400 389350 389300 389250 389200 389150

N

Gorsey La

Longridge Farm

Orchardhouse Farm

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1d - Wet woodland
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- r1a - Eutrophic standing water
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 201 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372650 372700 372750 372800 372850 372900 372950 373000 373050 373100 373150 373200 373250

390050 390000 389950 389900 389850 389800 389750 389700 389650 389600 389550

N

Moss La

Sinderland La

Gorsey La

Gorsey La

Gorsey La

Red House La

Longridge Farm

48

16 16 16 16 16 16 16 16 10

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1d - Wet woodland
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 202 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372700 372750 372800 372850 372900 372950 373000 373050 373100 373150 373200 373250 373300

390400 390350 390300 390250 390200 390150 390100 390050 390000 389950

N

Moss La

Sinderland La

Sinderland Green

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 203 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372800 372850 372900 372950 373000 373050 373100 373150 373200 373250 373300 373350

390800 390750 390700 390650 390600 390550 390500 390450 390400 390350 390300

Moss La

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 204 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372900 372950 373000 373050 373100 373150 373200 373250 373300 373350 373400 373450

391150 391100 391050 391000 390950 390900 390850 390800 390750 390700

48 115
10, 16
48
10, 16
16
48

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3 - Dense scrub
- h3f - Hawthorn scrub
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1b - Temporary grass and clover leys
- u1c - Artificial unvegetated unsealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 205 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3 - Dense scrub
- h3f - Hawthorn scrub
- h3h - Mixed scrub
- c1b - Temporary grass and clover leys
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1 - Standing open water and canals
- w1g6 - Line of trees
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 206 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- u1 - Built-up areas and gardens
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- r1 - Standing open water and canals
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 207 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372250 372300 372350 372400 372450 372500 372550 372600 372650 372700 372750 372800

392150 392100 392050 392000 391950 391900 391850 391800 391750 391700 391650

N

A6144

Common La

A6144

Manchester Road

17

48

362

362

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- u1 - Built-up areas and gardens
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 208 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372800 372850 372900 372950 373000 373050 373100 373150 373200 373250 373300 373350 373400

391900 391850 391800 391750 391700 391650 391600 391550 391500 391450 391400

N

17

17

48

362

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- u1 - Built-up areas and gardens
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1 - Standing open water and canals
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 209 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

372650 372700 372750 372800 372850 372900 372950 373000 373050 373100 373150 373200 373250

392300 392250 392200 392150 392100 392050 391950 391900 391850 391800

N

Common La

17

48

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- u1 - Built-up areas and gardens
- u1a - Open mosaic habitats on previously developed land
- u1b - Developed land, sealed surface
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

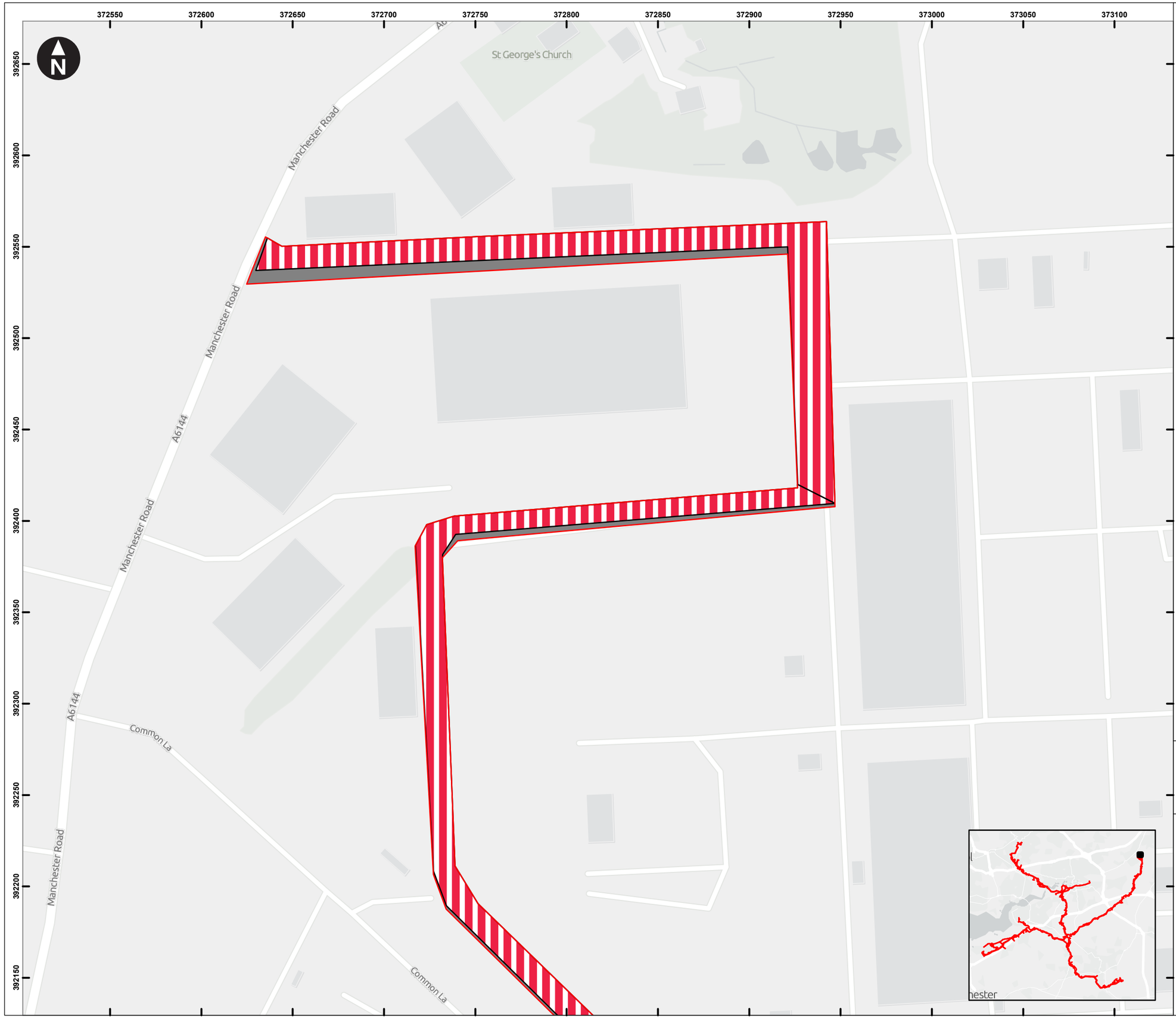
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 210 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

Preliminary Order Limits

u1b - Developed land, sealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 211 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359750 359800 359850 359900 359950 360000 360050 360100 360150 360200 360250 360300

378050 378000 377950 377900 377850 377800 377750 377700 377650 377600 377550

N

Northwich Road

A533

Dane Manor Farm

Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

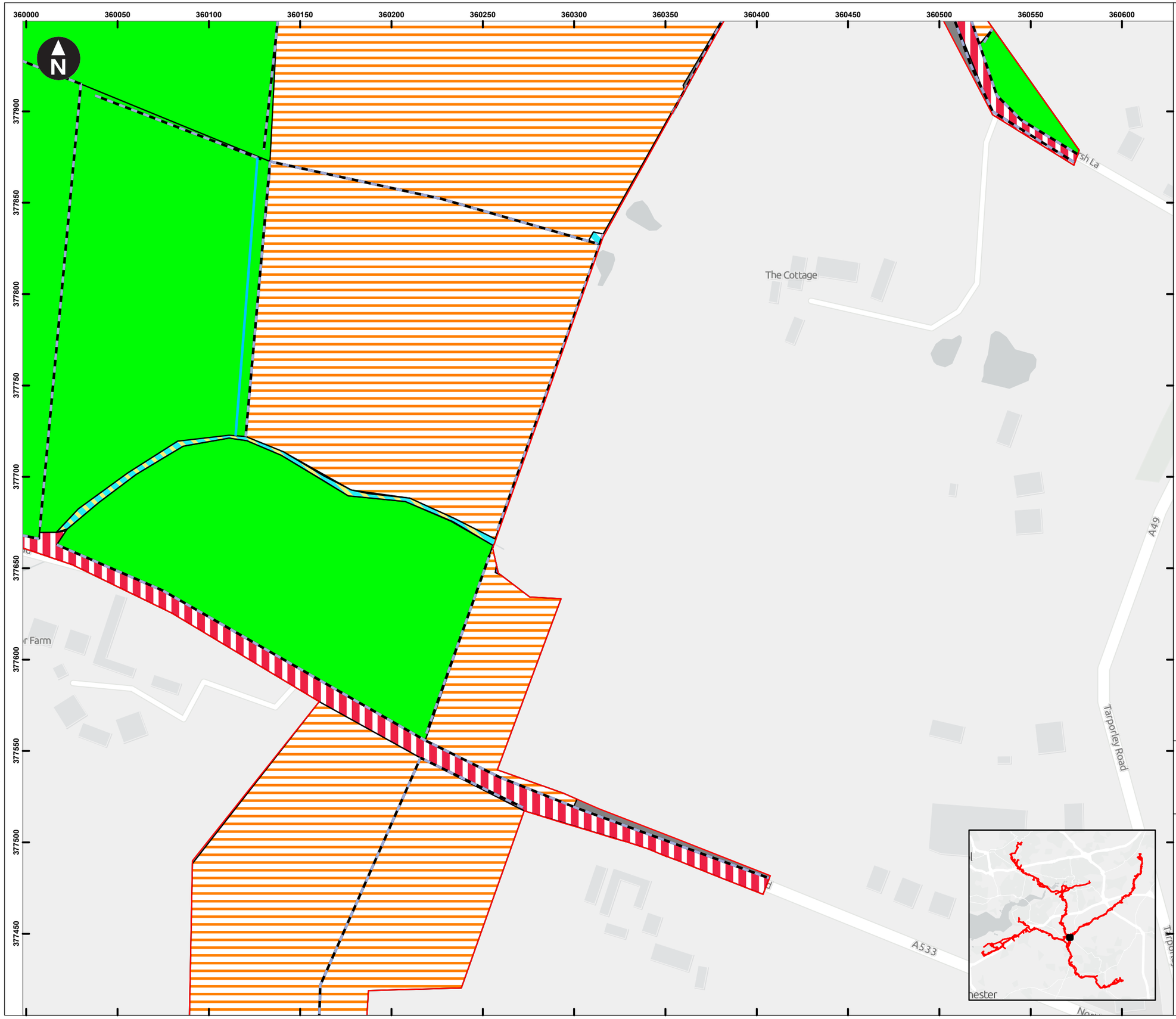
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 212 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 213 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359900 359950 360000 360050 360100 360150 360200 360250 360300 360350 360400 360450 360500

377550 377500 377450 377400 377350 377300 377250 377200 377150 377100 377050

A533

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 214 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359950 360000 360050 360100 360150 360200 360250 360300 360350 360400 360450 360500 360550

377200 377150 377100 377050 377000 376950 376900 376850 376800 376750 376700

N

Chapel La

Warrington Road

A49

Herons Court

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 215 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359150 359200 359250 359300 359350 359400 359450 359500 359550 359600 359650 359700 359750

377150 377100 377050 377000 376950 376900 376850 376800 376750 376700

14, 16

N

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- h3d - Bramble scrub
- c1 - Arable and horticulture
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

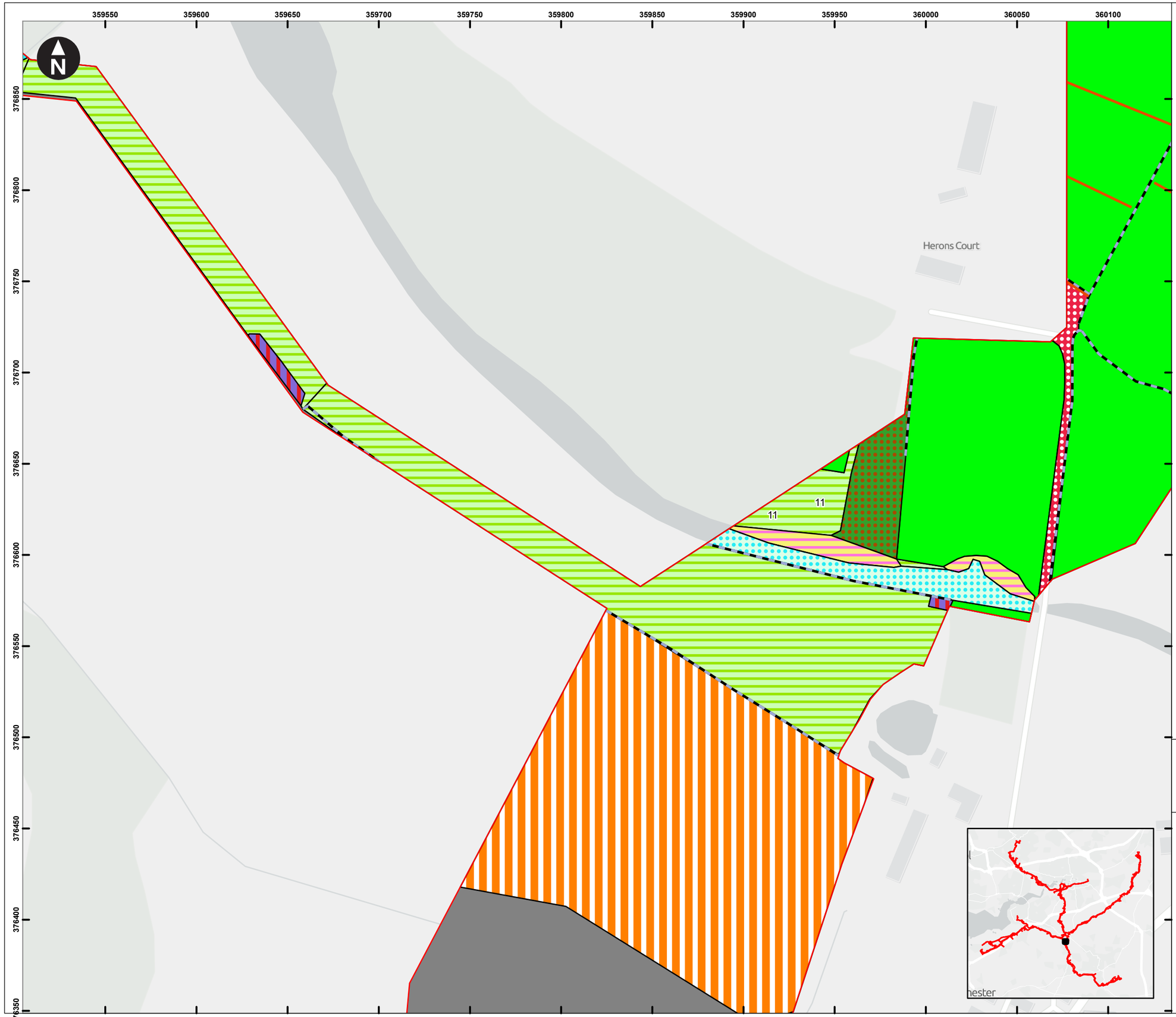
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 216 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- f2e - Reedbeds
- c1b - Temporary grass and clover leys
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 217 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- f2e - Reedbeds
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 218 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359650 359700 359750 359800 359850 359900 359950 360000 360050 360100 360150 360200 360250

376500 376450 376400 376350 376300 376250 376200 376150 376100 376050 376000

N

Bartington

Martinsfields

Martinsfields

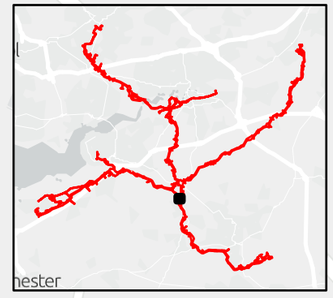
14

14

Willow Green La

Willow Green La

A49



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- h3f - Hawthorn scrub
- h3h - Mixed scrub
- f2e - Reedbeds
- f2f - Other swamps
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 219 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359550 359600 359650 359700 359750 359800 359850 359900 359950 360000 360050 360100 360150

376250 376200 376150 376100 376050 376000 375950 375900 375850 375800 375750

14

14

11

Willow Green La

Willow Green La

A49

Warrington Road

A49

Warrington Road

A49

Holly Tree Cottage

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- h3f - Hawthorn scrub
- h3h - Mixed scrub
- f2e - Reedbeds
- f2f - Other swamps
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 220 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359700 359750 359800 359850 359900 359950 360000 360050 360100 360150 360200 360250 360300

375850 375800 375750 375700 375650 375600 375550 375500 375450 375400 375350

N

Warrington Road

Holly Tree Cottage

A49

Warrington Road

11

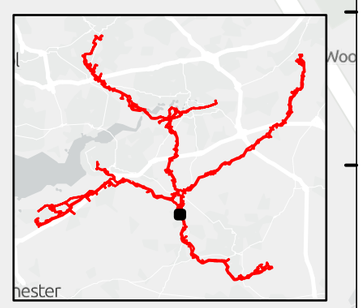
A49

Warrington Rd

Warrington Road

Acton La

Wall Hill Way



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 221 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359850 359900 359950 360000 360050 360100 360150 360200 360250 360300 360350 360400 360450

375500 375450 375400 375350 375300 375250 375200 375150 375100 375050 375000

N

Woodbine Cottage

Strawberry Farm

Warrington Road

A49

Warrington Road

15

Key

- Preliminary Order Limits
- g3c8 - Holcus-Juncus neutral grassland
- g4 - Modified grassland
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 222 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c8 - Holcus-Juncus neutral grassland
- g4 - Modified grassland
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

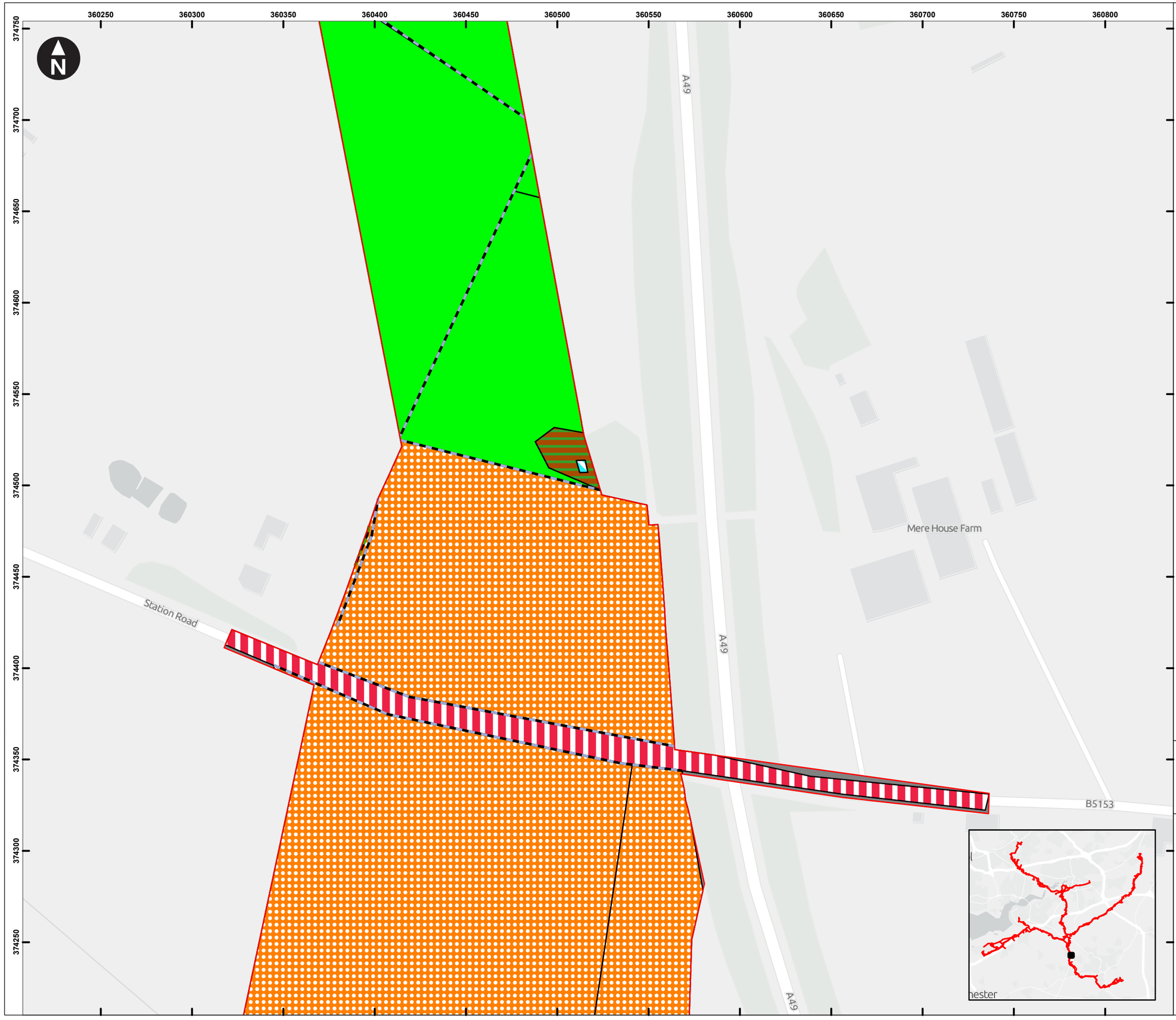
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 223 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 224 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 225 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359950 360000 360050 360100 360150 360200 360250 360300 360350 360400 360450 360500

373950 373900 373850 373800 373750 373700 373650 373600 373550 373500

14 14 14 14 14 14 14 14 14 14 14 14 14 48 14 14

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1d - Non-cereal crops
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 226 of 265

October 2024

wsp

Hefferston Hall
Lodge

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

359900 359950 360000 360050 360100 360150 360200 360250 360300 360350 360400 360450 360500

373600 373550 373500 373450 373400 373350 373300 373250 373200 373150 373100

N

Hefferston Hall New Lodge

Hall View Cl

Hefferston Rise

14, 16

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- w1h - Other woodland, mixed
- w2c - Other coniferous woodland
- h3d - Bramble scrub
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

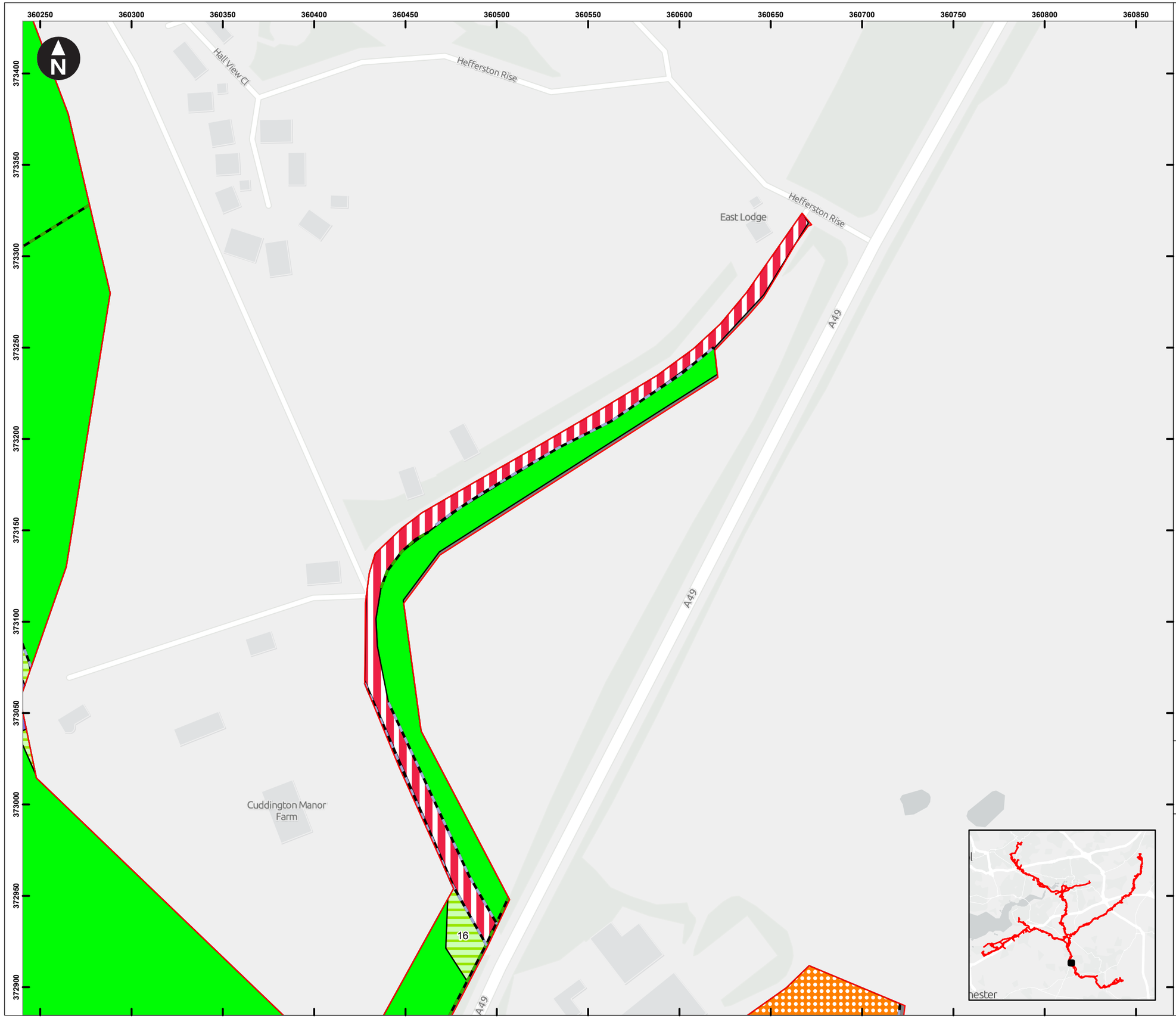
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 227 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

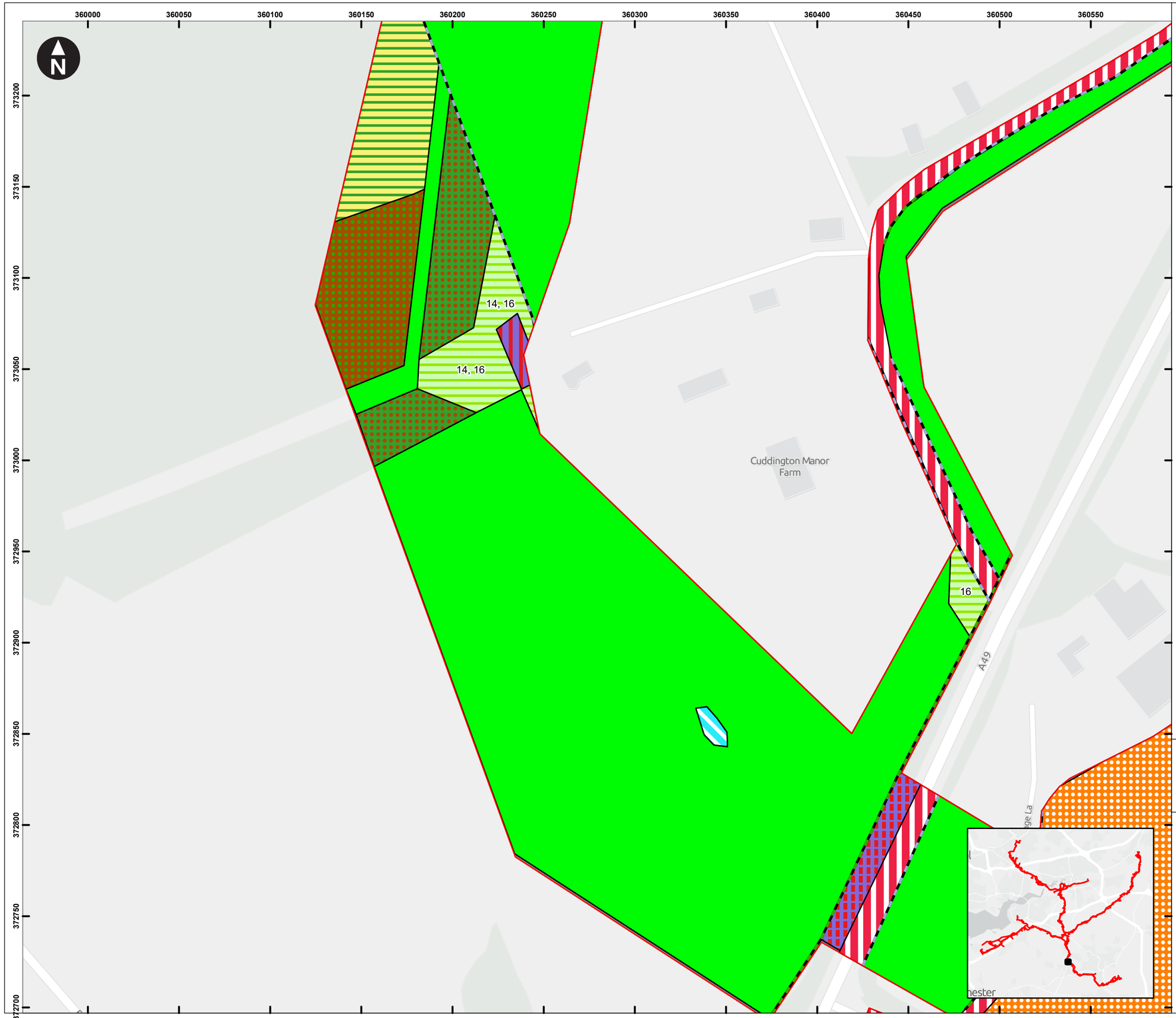
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 228 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- w1h - Other woodland, mixed
- w2c - Other coniferous woodland
- h3d - Bramble scrub
- h3h - Mixed scrub
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 229 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3h - Mixed scrub
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

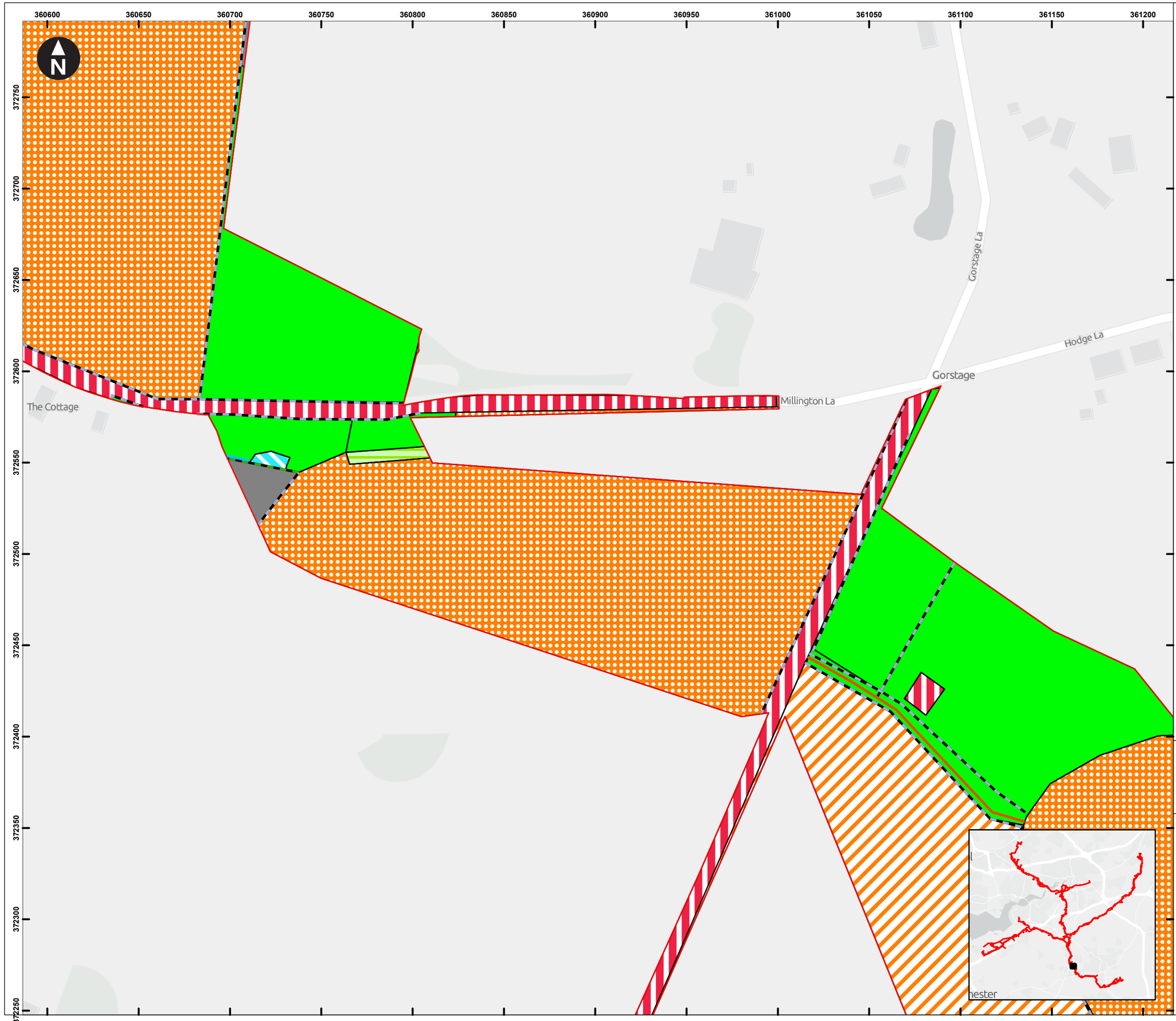
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 230 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 231 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

360850 360900 360950 361000 361050 361100 361150 361200 361250 361300 361350 361400 361450

372550 372500 372450 372400 372350 372300 372250 372200 372150 372100 372050

N

Weaverham Rd

16

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 232 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3h - Mixed scrub
- c1 - Arable and horticulture
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 233 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

361000 361050 361100 361150 361200 361250 361300 361350 361400 361450 361500 361550 361600

371850 371800 371750 371700 371650 371600 371550 371500 371450 371400 371350

N

14 10, 30

Littledale's Gorse

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- h3e - Gorse scrub
- h3h - Mixed scrub
- f2f - Other swamps
- s1d - Other inland rock and scree
- u1c - Artificial unvegetated unsealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 234 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- w1h - Other woodland, mixed
- h3e - Gorse scrub
- h3h - Mixed scrub
- s1d - Other inland rock and scree
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 235 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1h - Other woodland, mixed
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 236 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

361700 361750 361800 361850 361900 361950 362000 362050 362100 362150 362200 362250

371000 370950 370900 370850 370800 370750 370700 370650 370600 370550 370500

N

Vale Farm

Sandiway Golf Course

15 15 15 15 15 15 15 15 15 10 15 15 15 15

Key

- Preliminary Order Limits
- g3c8 - Holcus-Juncus neutral grassland
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- w1h - Other woodland, mixed
- h3e - Gorse scrub
- h3h - Mixed scrub
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 237 of 265

October 2024

wsp

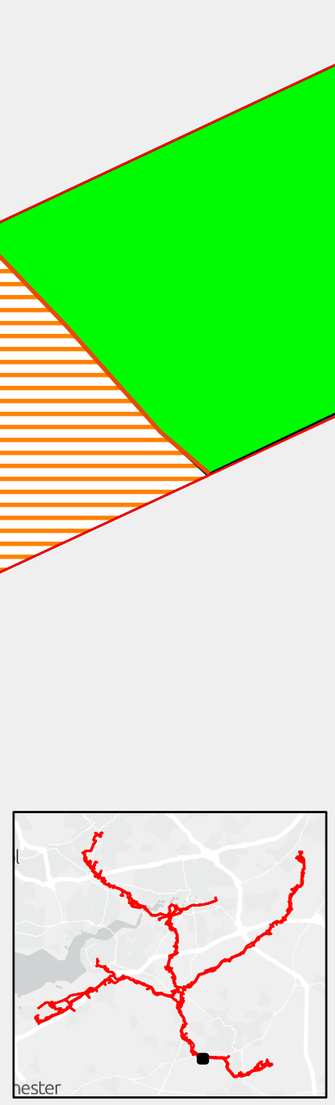
C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

362150 362200 362250 362300 362350 362400 362450 362500 362550 362600 362650 362700

370850 370800 370750 370700 370650 370600 370550 370500 370450 370400 370350

Vale Farm

Earnslow Grange Cottages



Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- h3e - Gorse scrub
- h3h - Mixed scrub
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- h2b - Other hedgerow
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

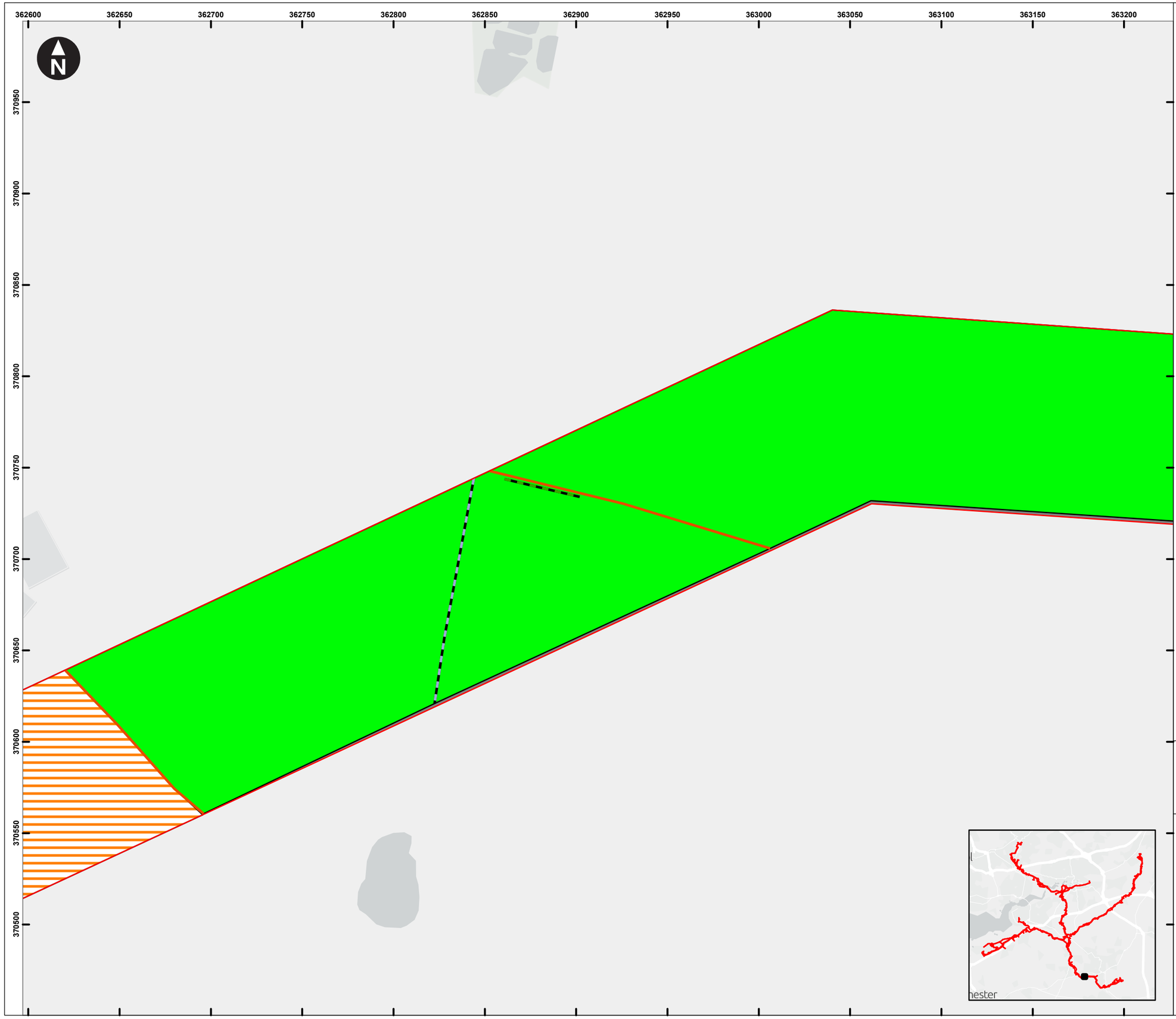
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 238 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

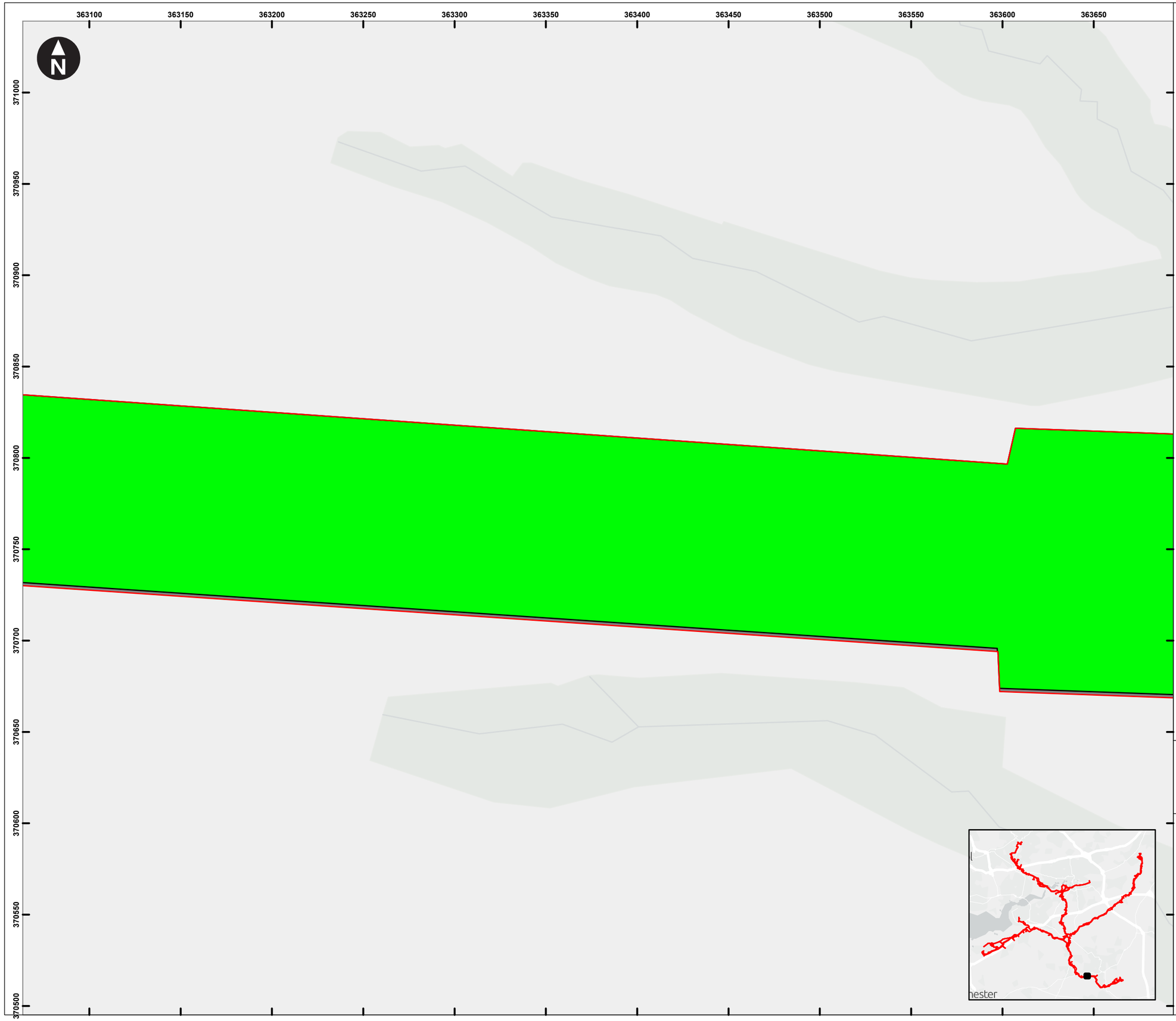
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 239 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

Preliminary Order Limits

g4 - Modified grassland

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 240 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

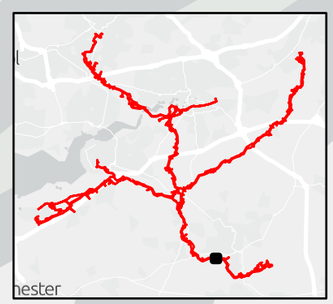
363500 363550 363600 363650 363700 363750 363800 363850 363900 363950 364000 364050 364100

371000 370950 370900 370850 370800 370750 370700 370650 370600 370550 370500

N

Hey's Wood

48



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

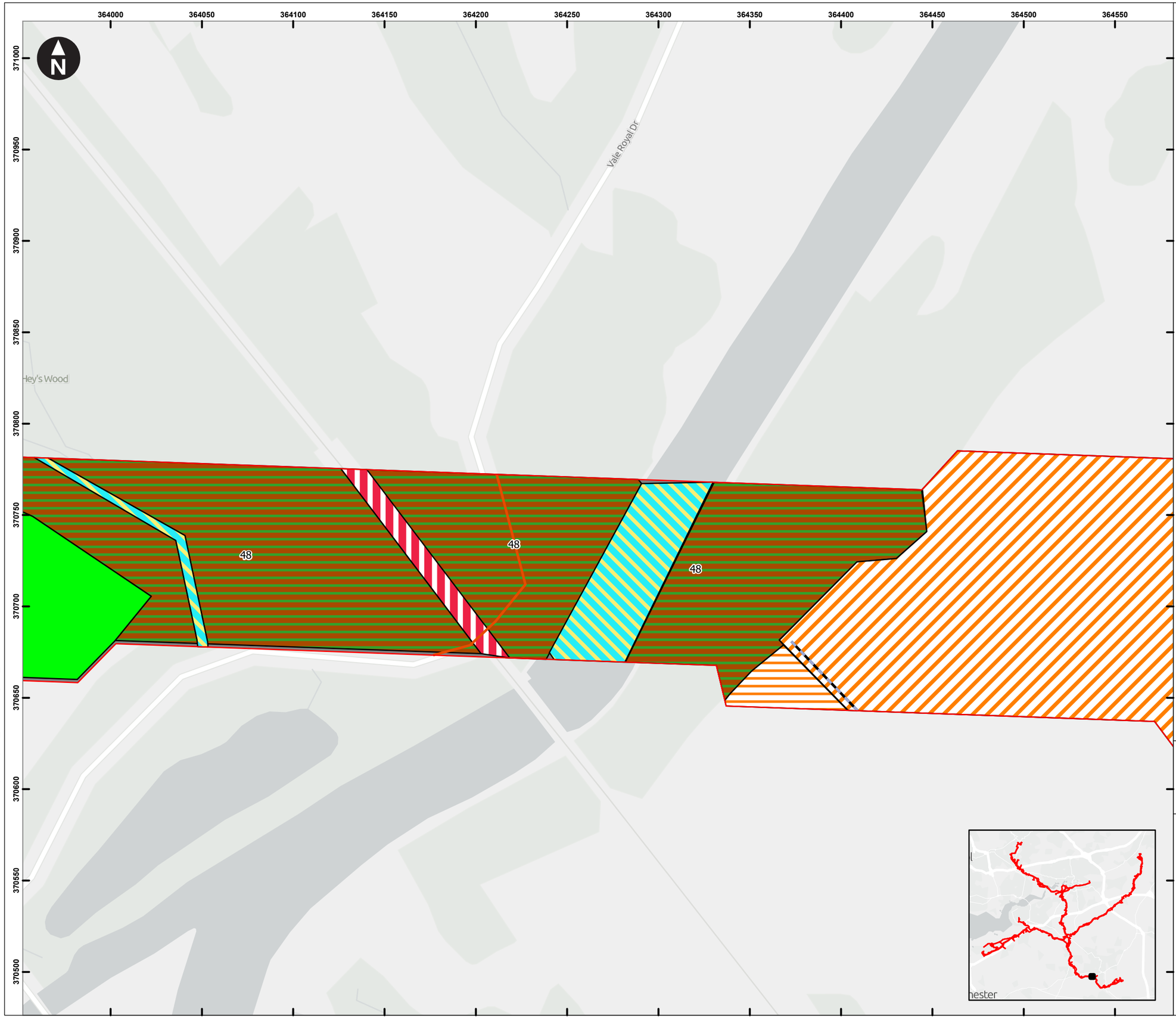
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 241 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 242 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

364350 364400 364450 364500 364550 364600 364650 364700 364750 364800 364850 364900

370950 370900 370850 370800 370750 370700 370650 370600 370550 370500 370450

N

48

Key

- Preliminary Order Limits
- w1f - Lowland mixed deciduous woodland
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1c - Artificial unvegetated unsealed surface
- r2b - Other rivers and streams
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

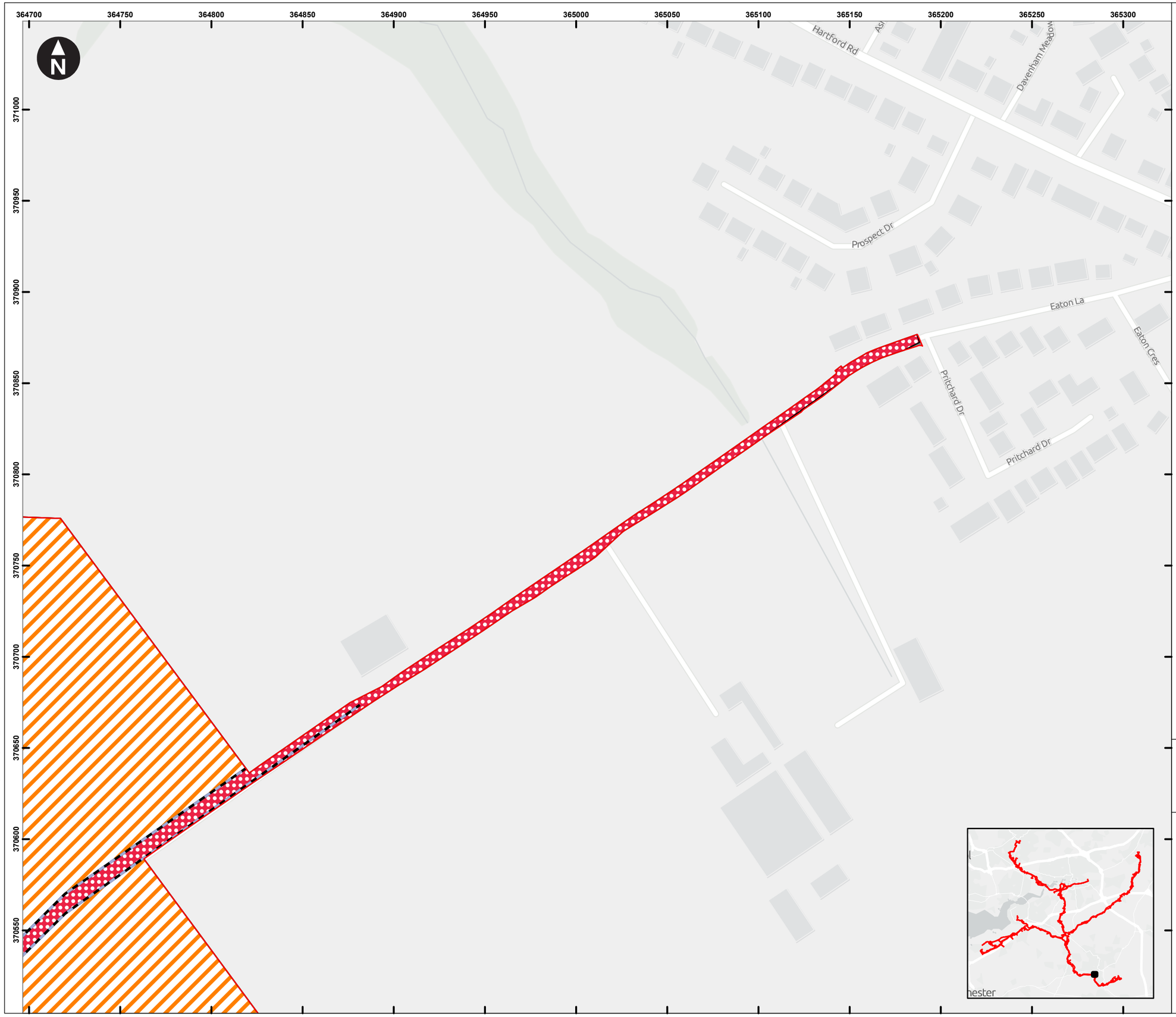
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 243 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- c1 - Arable and horticulture
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 244 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

364550 364600 364650 364700 364750 364800 364850 364900 364950 365000 365050 365100

370650 370600 370550 370500 370450 370400 370350 370300 370250 370200 370150

N

Eaton Hall Farm

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 245 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

364750 364800 364850 364900 364950 365000 365050 365100 365150 365200 365250 365300 365350

370300 370250 370200 370150 370100 370050 370000 369950 369900 369850 369800

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- h2a - Hedgrow (priority habitat)

Main Rd

Chapel St

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

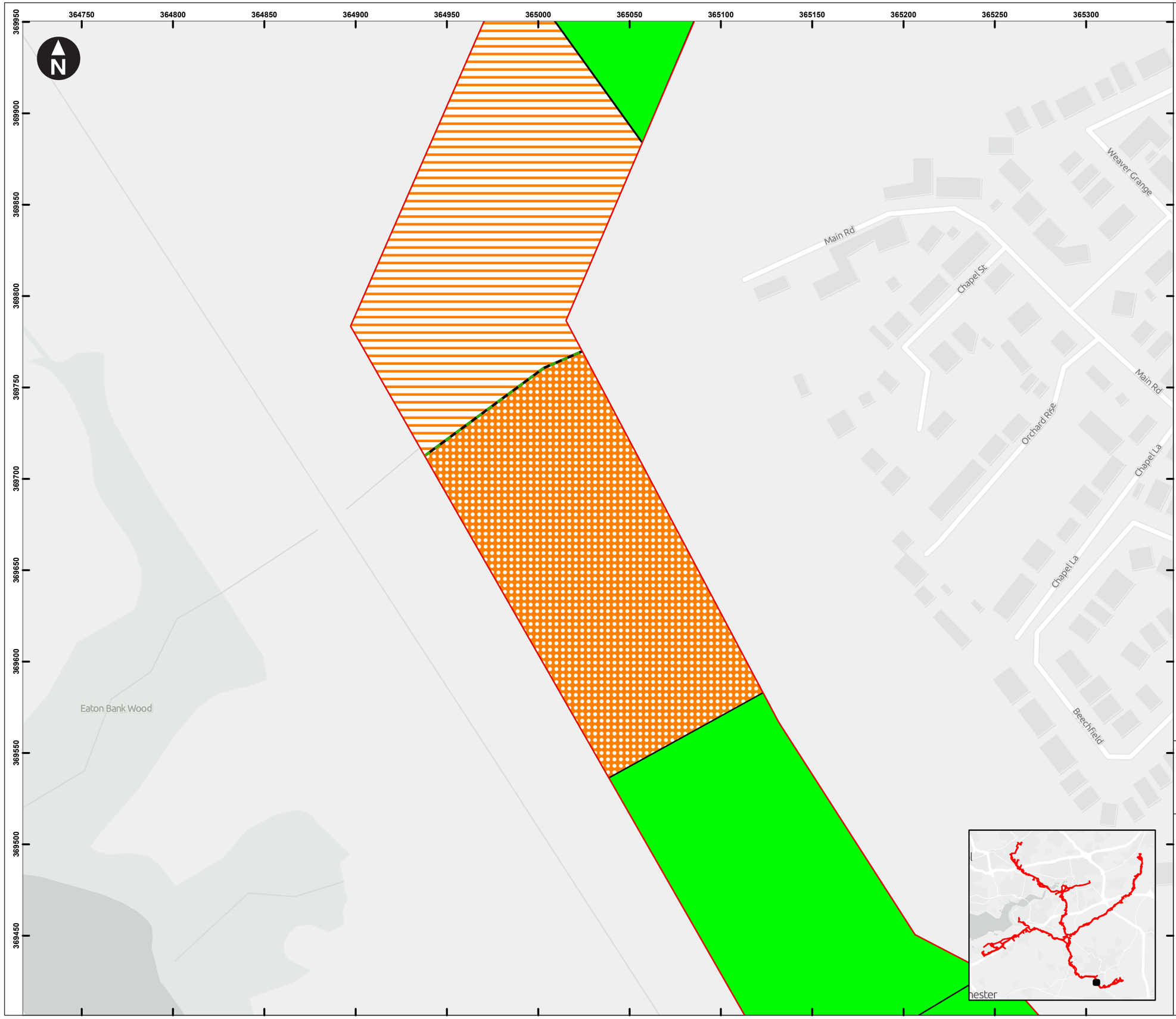
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 246 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- c1d - Non-cereal crops
- w1g6 - Line of trees

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 247 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 248 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

365250 365300 365350 365400 365450 365500 365550 365600 365650 365700 365750 365800 365850

369250 369200 369150 369100 369050 369000 368950 368900 368850 368800 368750

N

Niddries La

Niddries La

Tunnel Top Cottage

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1c - Cereal crops
- c1d - Non-cereal crops
- u1c - Artificial unvegetated unsealed surface

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 249 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

365550 365600 365650 365700 365750 365800 365850 365900 365950 366000 366050 366100 366150

369000 368950 368900 368850 368800 368750 368700 368650 368600 368550 368500

N

Key

- Preliminary Order Limits
- g4 - Modified grassland
- c1 - Arable and horticulture
- c1c - Cereal crops
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 250 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

365900 365950 366000 366050 366100 366150 366200 366250 366300 366350 366400 366450 366500

369150 369100 369050 369000 368950 368900 368850 368800 368750 368700

N

Brick Kiln La

Willow House

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1 - Arable and horticulture
- c1c - Cereal crops
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 251 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

366250 366300 366350 366400 366450 366500 366550 366600 366650 366700 366750 366800

369300 369250 369200 369150 369100 369050 369000 368950 368900 368850

A533

Brick Kiln La

Willow House

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 252 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

366300 366350 366400 366450 366500 366550 366600 366650 366700 366750 366800 366850

369000 368950 368900 368850 368800 368750 368700 368650 368600 368550 368500

N

Jack La

Jack La

A533

Addashaw Farm

hester

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

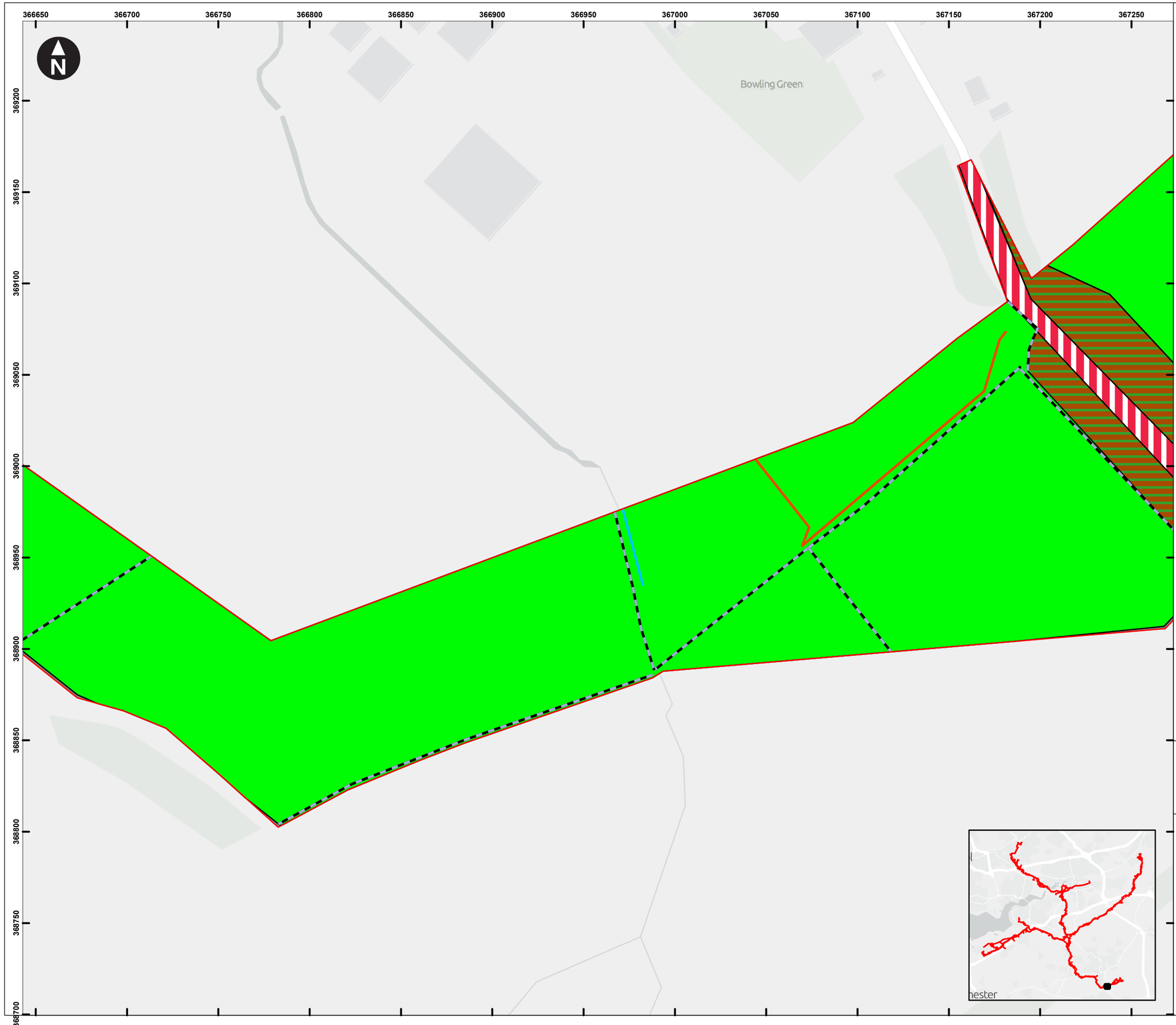
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 253 of 265

October 2024

wsp

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 254 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- u1b - Developed land, sealed surface
- h2a - Hedgrow (priority habitat)
- u1e - Built linear feature

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

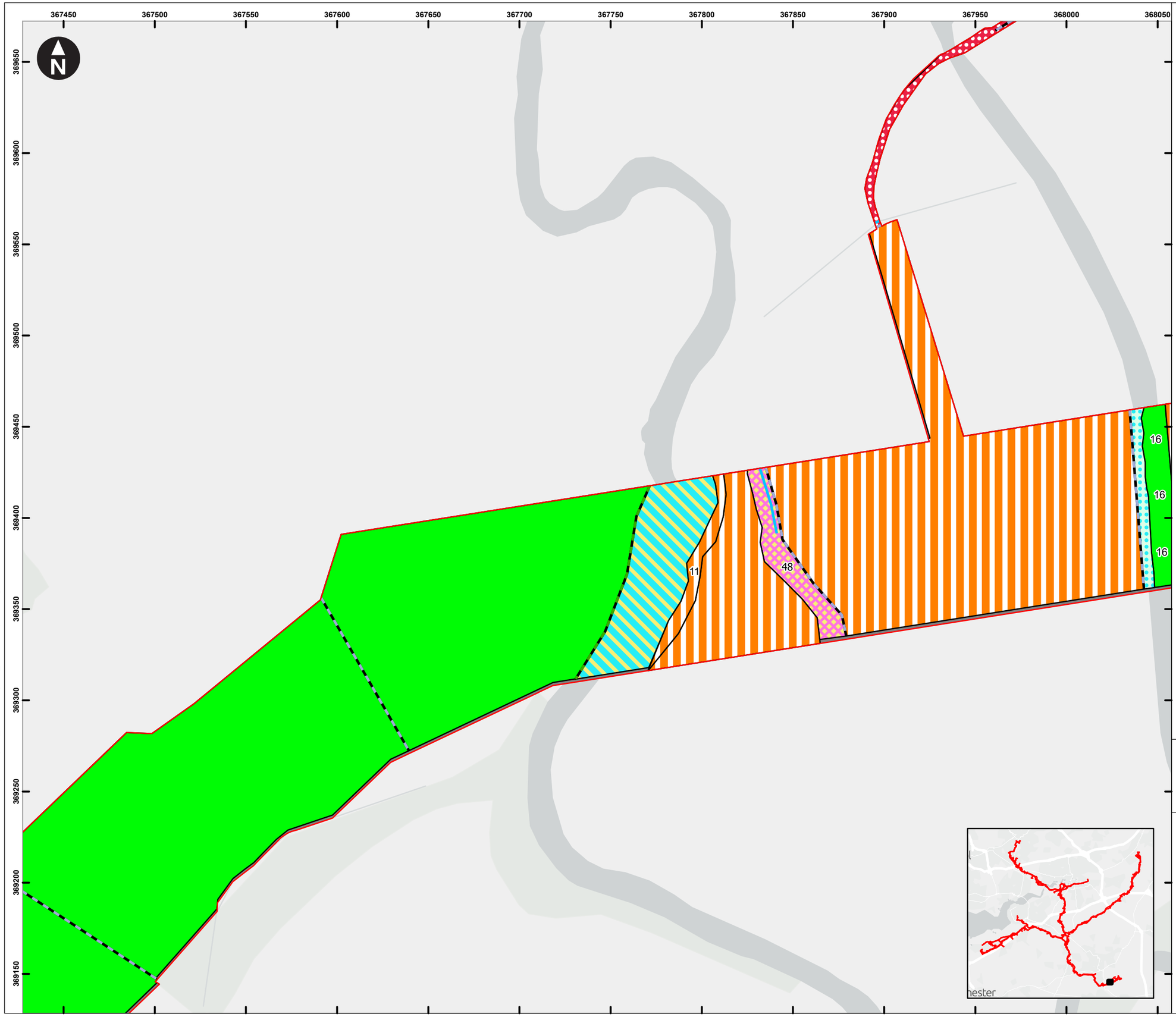
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 255 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- f2f - Other swamps
- c1b - Temporary grass and clover leys
- u1c - Artificial unvegetated unsealed surface
- r1e - Canals
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

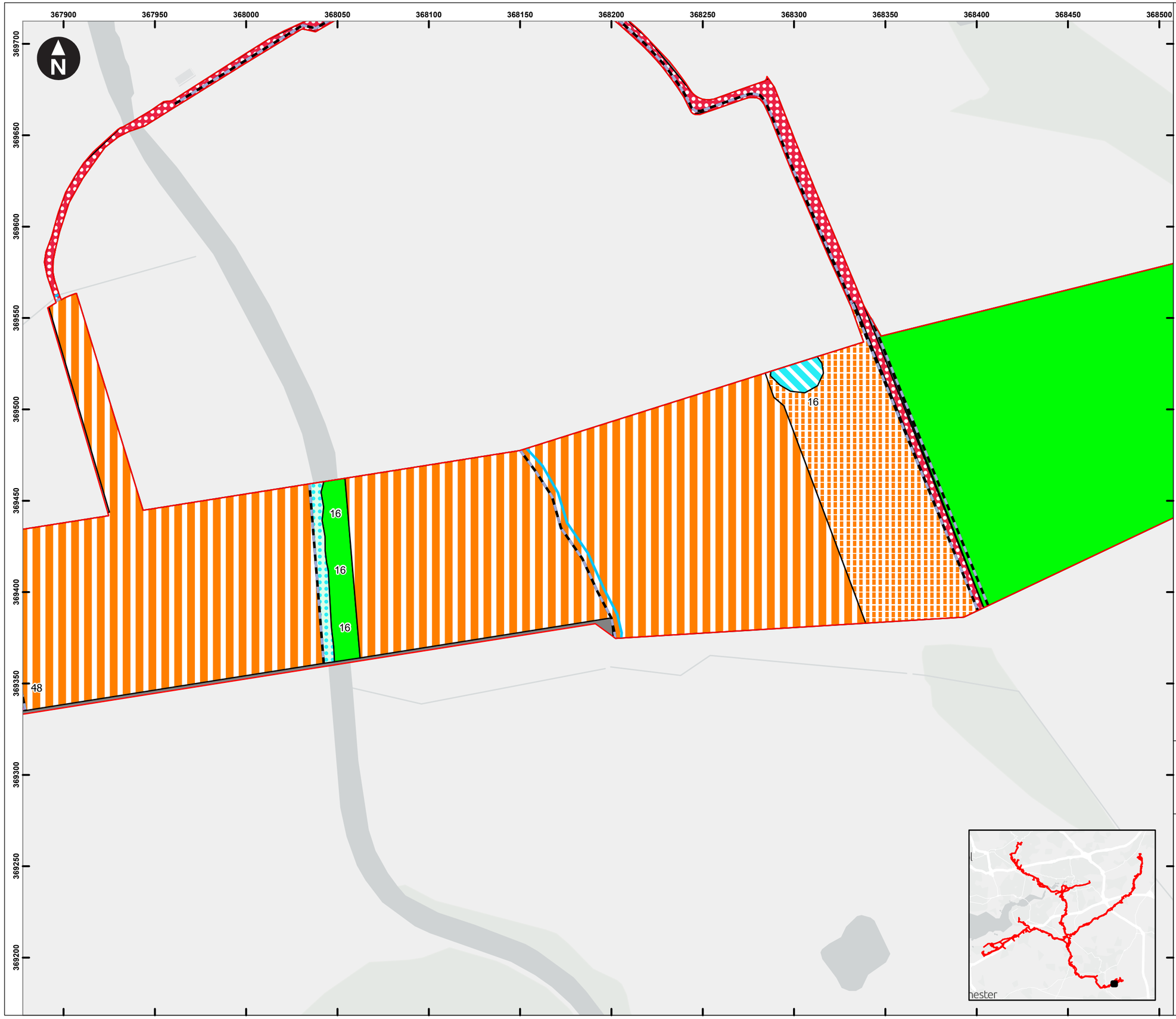
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 256 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- f2f - Other swamps
- c1a8 - Game bird mix strips and corners
- c1b - Temporary grass and clover leys
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r1e - Canals
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

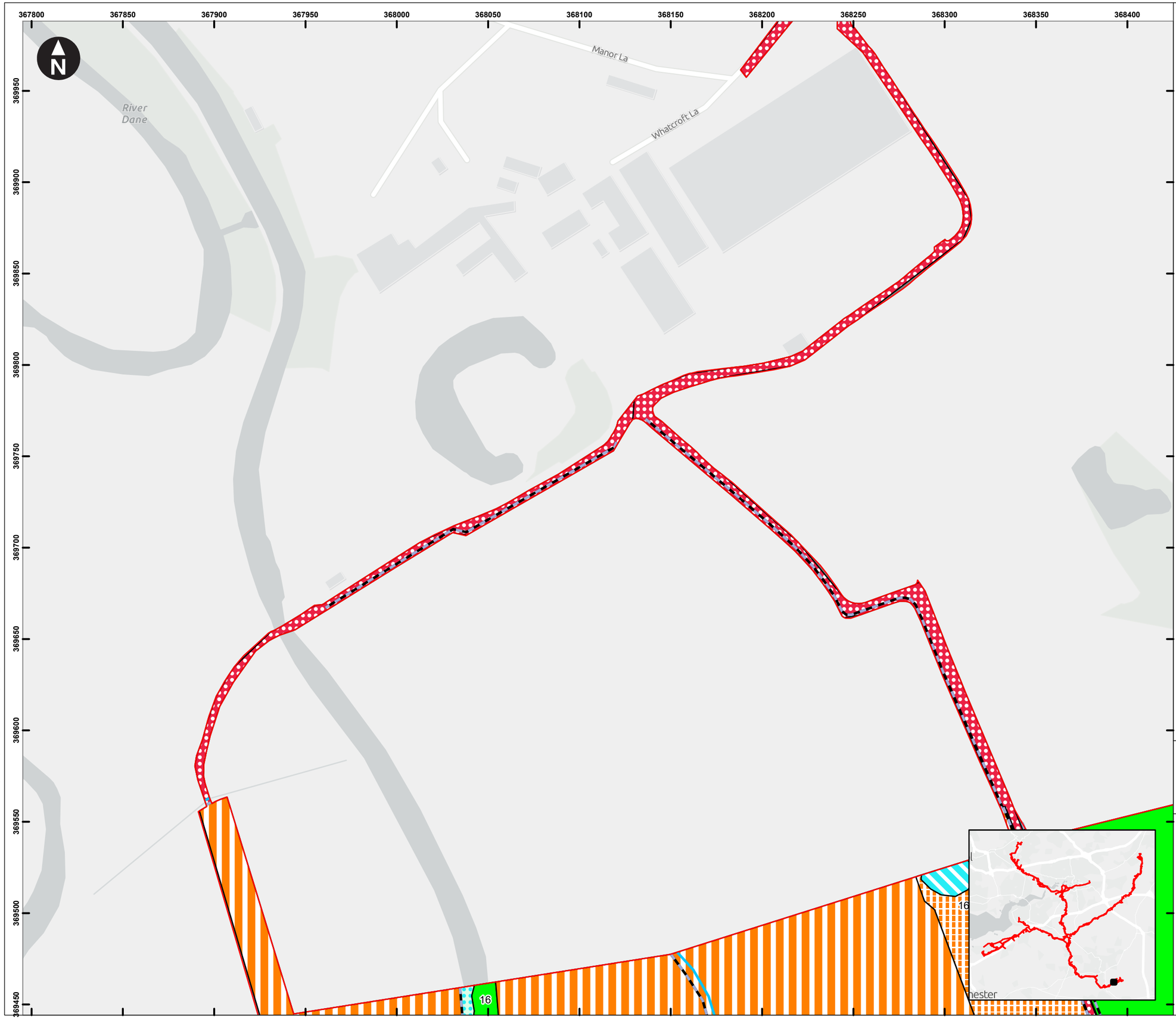
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 257 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- h3h - Mixed scrub
- c1a8 - Game bird mix strips and corners
- c1b - Temporary grass and clover leys
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r1e - Canals
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

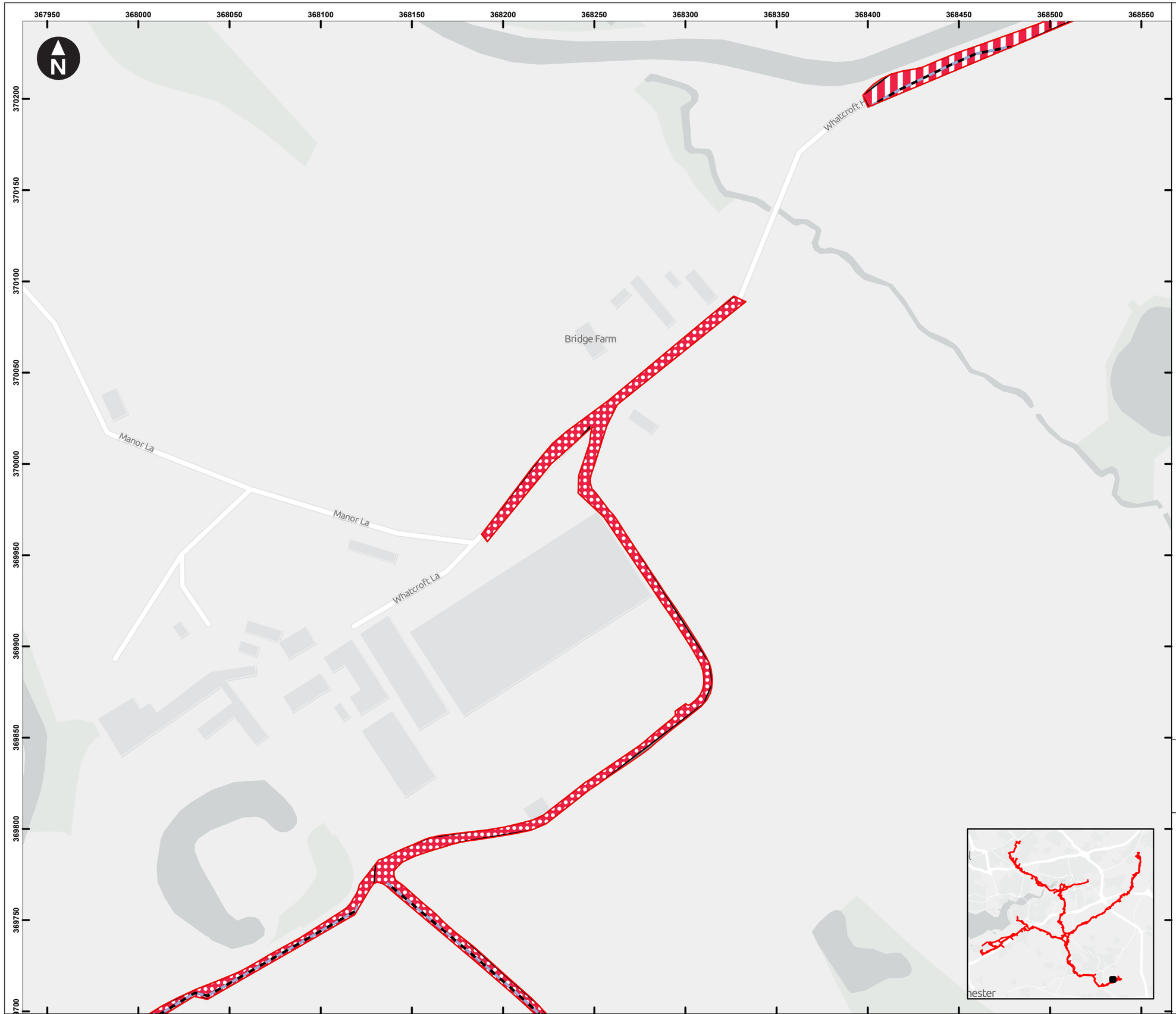
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 258 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

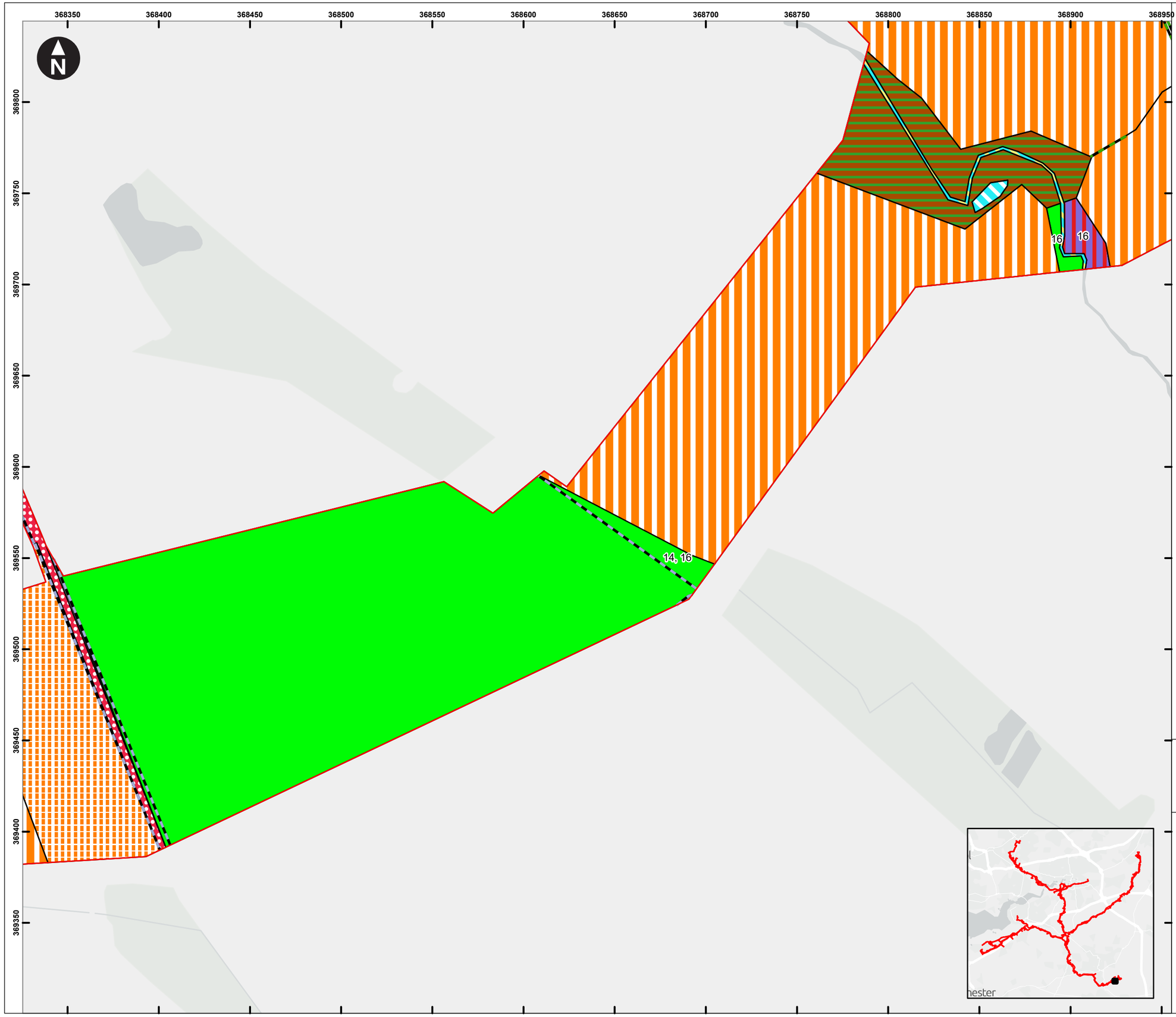
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 259 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1f - Lowland mixed deciduous woodland
- h3d - Bramble scrub
- c1a8 - Game bird mix strips and corners
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- r2b - Other rivers and streams
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

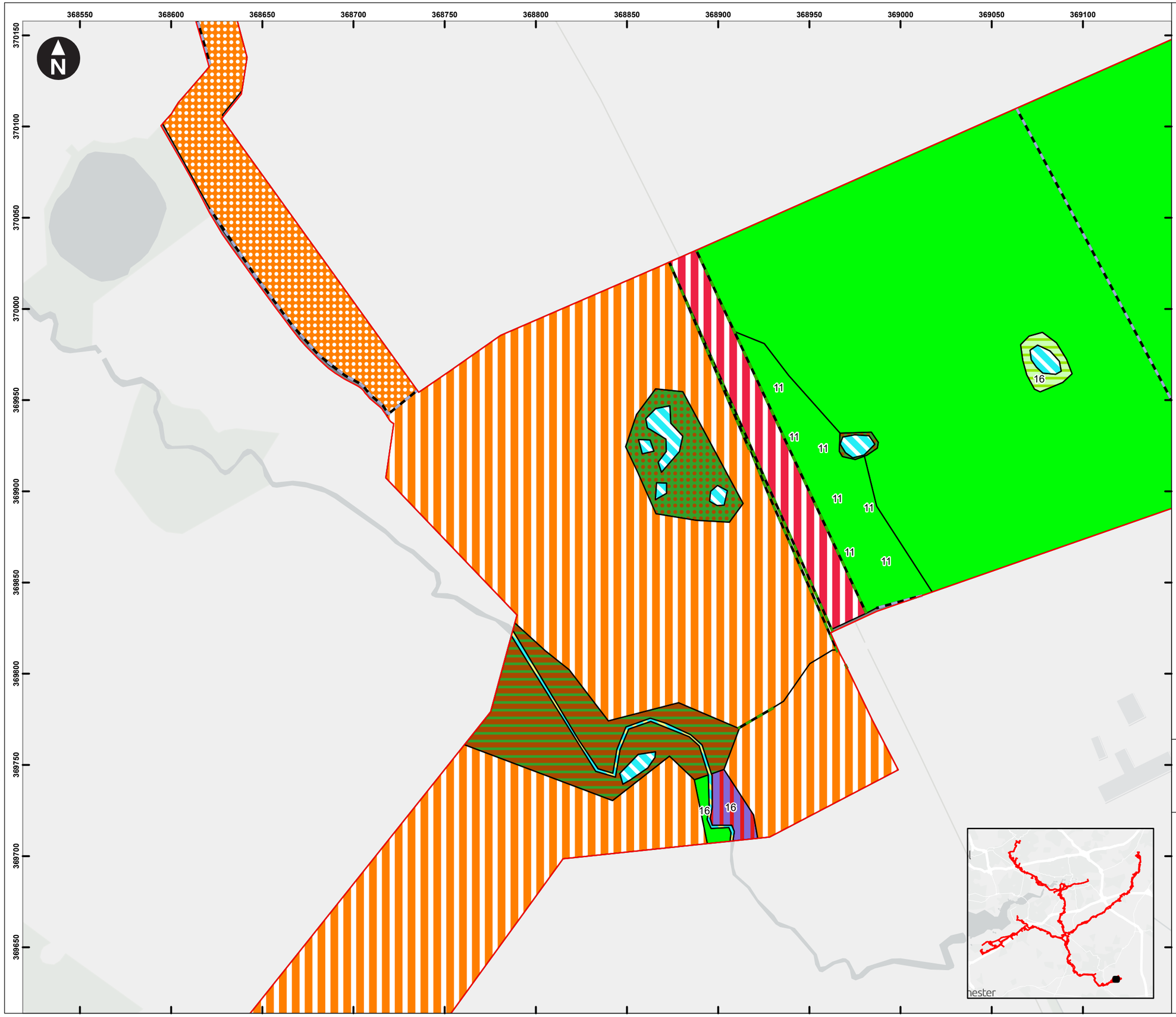
Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 260 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776


368550
368600
368650
368700
368750
368800
368850
368900
368950
369000
369050
369100
370150
370100
370050
370000
369950
369900
369850
369800
369750
369700
369650
N
11
16
Key
Preliminary Order Limits
g3c - Other neutral grassland
g4 - Modified grassland
w1f - Lowland mixed deciduous woodland
w1g - Other woodland, broadleaved
h3d - Bramble scrub
c1b - Temporary grass and clover leys
c1d - Non-cereal crops
u1b - Developed land, sealed surface
r1a - Eutrophic standing water
r2b - Other rivers and streams
w1g6 - Line of trees
h2a - Hedgrow (priority habitat)
0 20 40 60 80 100 m
Scale at A3: 1:2,000
GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack
Client
Cadent
HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report
Figure 5C.1
UKHab Survey Results
Sheet: 261 of 265
October 2024
wsp
C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

368300 368350 368400 368450 368500 368550 368600 368650 368700 368750 368800 368850 368900

370450 370400 370350 370300 370250 370200 370150 370100 370050 370000 369950

N

Whatcroft Hall La

Whatcroft H

hester

Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1g - Other woodland, broadleaved
- c1b - Temporary grass and clover leys
- c1d - Non-cereal crops
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 262 of 265

wsp

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

368950 369000 369050 369100 369150 369200 369250 369300 369350 369400 369450 369500

370250 370200 370150 370100 370050 370000 369950 369900 369850 369800 369750

16 16 16 16 16 11 11 11 11 11 11

Key

- Preliminary Order Limits
- g3c - Other neutral grassland
- g4 - Modified grassland
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- h3d - Bramble scrub
- c1b - Temporary grass and clover leys
- u1b - Developed land, sealed surface
- r1a - Eutrophic standing water
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 263 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 264 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776



Key

- Preliminary Order Limits
- g4 - Modified grassland
- w1d - Wet woodland
- u1b - Developed land, sealed surface
- w1g6 - Line of trees
- h2a - Hedgrow (priority habitat)
- r1 191 - Ditch

0 20 40 60 80 100 m

Scale at A3: 1:2,000

GB Light Grey: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Client

Cadent

HyNet North West Hydrogen Pipeline Project
Draft Environmental Statement
UKHab Survey Report

Figure 5C.1
UKHab Survey Results
Sheet: 265 of 265

October 2024

C:\Users\UKJJC776\OneDrive - WSP O365\Documents\HyNet\HyNet_UkHabs\HyNet_UkHabs.aprx Originator: UKJJC776

HyNet North West Hydrogen Pipeline

Delivering clean growth

Cadent

Your Gas Network