

Ecological Impact Assessment



**Rhodes Business Park
Middleton**

31st October 2023



**Tyler
Grange**

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Summary

- S.1. This report has been prepared by Tyler Grange Group Limited on behalf of Oxenwood. It sets out the findings of an EclA at Rhodes Business Park, Middleton, hereinafter referred to as 'the site'. The proposals are for the erection of an industrial unit, with associated landscaping and car parking.
- S.2. Broadman Brook SBI, Alkington Woods & Rhodes Lodes LNR and SBI, and Blackley Forest & Heaton Vale Reservoir LNR and SBI are located on the southern site boundary, approximately 35 m east and 1.4 km south-west of the site, respectively. These designated sites are located in close proximity to the site, or are connected to the site by the River Irk. As such, standard best practice pollution prevention is expected to be incorporated into a CEMP, to ensure any impacts to the designated sites will be avoided.
- S.3. The development will largely extend over the habitats of negligible ecological importance, such as the modified grassland, hardstanding, neutral grassland, tall forbs, scattered trees and introduced shrub, the loss of which will require no mitigation. The small areas of woodland on the southern site boundary are the only habitats of local ecological importance on-site, and are also listed as a Priority Habitat. Due to the very small area of habitat to be lost, approximately 175 m² equating to 9 trees, the loss will be mitigated by the provision of 26 proposed native scattered trees within the landscaped areas of the site.
- S.4. Japanese knotweed and Himalayan balsam are present in the west of the site. These invasive species should be removed by a specialist invasive species contractor prior to the start of works.
- S.5. The BNG calculation concluded the development would result in a gain of 0.16 habitat units (22.60%), a gain of 0.22 hedgerow units (% not able to calculate as baseline is zero), and the river units would remain the same. This satisfies the requirements of Policy G7 of the Rochdale Core Strategy Local Plan 2016. Details of habitat establishment and 30-year management will be provided through the production of a LEMP.
- S.6. Due to the low initial importance of the site for fauna, the effects on protected species will be minimal. A CEMP will be required to detail Precautionary Working Methods for badger, hedgehog, otter and kingfisher.
- S.7. In addition the following mitigation will be required:
- During any site clearance, any common amphibians uncovered should be moved carefully by hand to a suitably vegetated area outside of construction workings.
 - A Lighting Plan will be required to ensure the River Irk, and associated woodland corridor on the southern site boundary, will be maintain as dark areas during and post construction, to ensure bats and other wildlife are not deterred from using the habitat.
 - A pre commencement check of the woodland on the southern site boundary for badger immediately prior to the start of works should be completed.
 - Clearance of suitable habitat (woodland, scattered trees and introduced shrub) should be timed outside the core nesting bird season (March to September inclusive). If this is not possible, a nesting bird check will be required by an ECoW, no more than 48 hours prior to the works commencing.
- S.8. In conclusion, in anticipation of the implementation of any necessary mitigation, the proposed development will be compliant with relevant planning policies and legislation as detailed in **Appendix 3** with regards to ecological matters.



Section 1: Introduction and Context

Introduction

- 1.1. This report has been prepared by Tyler Grange Group Ltd (TG) on behalf of Oxenwood. It relates to a full planning application for land at Rhodes Business Park, Middleton cantered on OS grid reference SD 85480 05191, and hereafter referred to as 'the site'. See **Figure 1.1** for the red line boundary.



Figure 1.1: Red line boundary (© Google Aerial Imagery)

- 1.2. This assessment has been undertaken to inform a full planning application for the development of a warehouse unit with associated carparking and landscaping. The site proposals are shown in **Appendix 1**, with the Landscape Plan shown in **Appendix 2**.

Site Context

- 1.3. The site covers an area of approximately 0.5 hectares (ha), comprising a hardstanding carpark and surrounding vegetation. The extent of the site is shown in **Plan 16200/P03** appended to this report. The River Irk and surrounding woodland corridor are present to the south and west of the site, with units associated with Rhodes Business Park present to the north. Boardman Brook Site of Biological Importance (SBI) and Alkrington Woods & Rhodes Lodges SBI and Local Nature Reserve (LNR) are located to the east of the site, comprising a number of fishing ponds and woodland.



Purpose

- 1.4. This report:
- Uses available background data and results of the field surveys to describe and evaluate the ecological features present within the likely “Zone of Influence”^{1 2} (Zol) of the proposed development;
 - Describes the actual or potential ecological issues and opportunities that might arise as a result of the site’s development.
 - Where appropriate, makes commitments for mitigation measures for adverse effects on ecological features as well as ecological enhancements, to ensure conformity with policy and legislation listed in **Appendix 3**; and
 - Can be used to inform a planning application for the site’s development.
- 1.5. This assessment and the terminology used are consistent with published guidance^{3 4}. A full methodology is set out in **Appendix 4**.

Methodology

- 1.6. The habitat survey comprised an extended Phase 1⁵ and UK Hab⁶ survey.
- 1.7. The data search was based on records purchased from Greater Manchester Ecology Unit (GMEU), as well as data from the Multi-Agency Geographic Information for the Countryside (MAGIC)⁷.
- 1.8. The methodologies for the protected species surveys are set out in **Appendices 5 and 6**.

Quality Control

- 1.9. All ecologists at Tyler Grange Group Limited are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) or are working towards membership, and act under the direction of members and abide by the Institute’s Code of Professional Conduct⁸.

¹ CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

² Defined as the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries.

³ CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

⁴ CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

⁵ JNCC. (2010) *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. Joint Nature Conservation Committee, Peterborough.

⁶ UKHab Ltd (2023) *UK Habitat Classification Version 2.0* (at <https://www.ukhab.org>)

⁷ <https://magic.defra.gov.uk/magicmap.aspx> [Accessed October 2023]

⁸ CIEEM (2022) *Code of Professional Conduct*. CIEEM, Winchester.



Limitations and Assumptions

- 1.10. During the Extended Phase 1 Survey, land within 30 m of the site boundary on the eastern and southern boundary could not be accessed due to the presence of a metal palisade fence. As such, some signs of badger *Meles meles* may have been missed. However, these areas were successfully assessed for the presence of badger setts from the southern bank of the River Irk using binoculars, and as such this is not thought to pose a major constraint.
- 1.11. These access constraints also prevented the close inspection of the trees to assess them for their bat roosting potential. However, they were also assessed from the southern river bank using binoculars, so this is not thought to pose a major constraint.
- 1.12. During the Otter Survey, the watercourse was found to have reinforced banks and was very fast flowing. It was therefore not safe to enter the watercourse to complete the assessment. However, a path was present that followed the river, with the banks visible from the path. This is therefore not thought to pose a major constraint to the assessment.
- 1.13. Rain showers were recorded the day before the Otter Survey and therefore may have washed some field sign away. However, the rain was light and, due to the attributes of the river, i.e. reinforced banks with high disturbance, the habitat provided is not optimal for otter *Lutra lutra*, with no potential holt locations found. As such, the recording of light rain the day before the survey is not thought to have affected the survey results.
- 1.14. The findings of this report are valid at the time of writing. Owing to the dynamic nature of ecological resources, if more than 12 months have elapsed since the report was written, advice should be sought to determine whether update work is required. The findings of the report should not be relied upon without this advice.
- 1.15. The PEA survey was completed in September, which is an appropriate time of year to complete the survey. However, as a result of differing flowering times, some species of plant may have been missed or misidentified. Due to the habitats present on-site, this is not thought to pose a major constraint.
- 1.16. This report is also partly based on 3rd party data held by the Local Record Centre, of which Tyler Grange Group Ltd. cannot guarantee the accuracy.



Section 2: Ecological Features and Evaluation

Designated Sites

- 2.1. The data search returned one Natura 2000 sites within 10 km of the site, two statutory sites within 2 km of the site and five non-statutory sites within 2 km of the site, as detailed in **Table 2.1** below.

Table 2.1. Designated Sites

Designated site	Distance and direction from site	Citation	Ecological Importance
Rochdale Canal Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI)	3.3 km east	The Rochdale Canal contains important habitats for submerged aquatic plants and emergent vegetation, including extensive colonies of the nationally scarce SAC species floating waterplantain <i>Luronium natans</i> . The SAC also supports a diverse assemblage of aquatic flora, notably its assemblage of pondweeds, <i>Potamogeton spp</i> ; the nine species of which found in the canal represent a balanced community which reflects the quality of water.	European
Alkington Woods & Rhodes Lodes LNR and SBI	35 m east	The LNR/SBI include woodland, grassland, marsh, fishing ponds and amenity areas surrounding the Irk Valley.	County
Blackley Forest & Heaton Vale reservoir LNR and SBI	1.4 km south-west	The LNR/SBI comprises woodland, grassland and marsh surrounding the River Irk.	County
Broadman Brook SBI	Southern site boundary	The SBI is a small valley supporting a mosaic of habitats including woodland, scrub, marsh, swamp and a stream. These habitats are Greater Manchester Biodiversity Habitats.	County
Streams & Flushes Near Bradley Hall Farm SBI	670 m north-west	The SBI comprises grassland and a stream.	County
Hazlitt Wood SBI	1.7 km west	The SBI includes broadleaved woodland, a stream, lake woodpasture and parkland, and lowland fens.	County

- 2.2. The development does not fall into any of the criteria set out by Natural England requiring further assessment with regards to Rochdale Canal SSSI / SAC.

Habitats and Flora

- 2.3. A review of the MAGIC identified Priority Habitat Deciduous Woodland present in the south of the site, as shown on **Figure 2.1** below. However, during the Extended Phase 1 Habitat Survey, the area shown in the south-west corner was found to comprise tall ruderal vegetation not woodland. The two small rectangular areas of woodland on the southern boundary were however confirmed to comprise woodland. As a result of development, these small two small areas of woodland (approximately 175 m² or 9 trees) will require removal. The mitigation for this loss is discussed further in **Section 3**.





Figure 2.1 Priority Habitat Deciduous Woodland (green), red line boundary (red) (© MAGIC)

- 2.4. The habitats present on-site are summarised below in **Table 2.2**, along with a description of the composition of the main plant species present and an assessment of their ecological importance. The location of habitats are shown on the Habitats Features Plan **16200/P03**.



Table 2.2. Habitats and Flora

Habitat	Description and Species	Ecological Importance	Photograph
<u>Primary code:</u> Modified grassland g4	An area of modified grassland was present in the north of the site which was maintained at a short length. Species present included ribwort plantain <i>Plantago lanceolata</i>, white clover <i>Trifolium repens</i>, dandelion <i>Taraxacum officinale</i> agg., ragwort <i>Jacobaea vulgaris</i>, black medic <i>Medicago lupulina</i> and creeping buttercup <i>Ranunculus repens</i>.	Due to the limited floristic diversity and highly managed nature of the habitat, it is considered to have negligible ecological importance.	
<u>Primary code:</u> Other broadleaved woodland w1g	Two very small sections of broadleaved woodland were present on the southern site boundary and largely comprised semi-mature and immature silver birch <i>Betula pendula</i> and goat willow <i>Salix caprea</i>. The understory comprised ivy <i>Hedera helix</i>, fern species, bramble <i>Rubus fruticosus</i>, wood avens <i>Geum urbanum</i> and bindweed species <i>Calystegia</i> sp. The woodland is listed as Priority Habitat Deciduous Woodland. The woodland continued off-site to the south and formed a woodland corridor surrounding the River Irk. Invasive species Japanses Knotweed <i>Reynoutria japonica</i> and Himalayan balsam <i>Impatiens glandulifera</i> were located within this woodland immediately off-site.	Due to the connection to further vegetation, the habitat is considered to have local ecological importance. The habitat is also a Priority Habitat.	
<u>Primary Code:</u> Other developed land u1b6	The majority of the site comprised a hardstanding concrete carpark.	Due to the lack of vegetation cover, the habitat is considered to be of negligible ecological importance.	
<u>Primary Code:</u> Other neutral grassland g3c	A small area of neutral grassland was present in the west of the site. Species present included yarrow <i>Achillea millefolium</i>, black medic, dandelion, cock's foot <i>Dactylis glomerata</i>, Yorkshire fog <i>Holcus lanatus</i>, willowherb species <i>Epilobium</i> sp., cranesbill species <i>Geranium</i> sp., ribwort plantain, silverweed <i>Potentilla anserina</i>, colts foot <i>Tussilago farfara</i>, field horsetail <i>Equisetum arvense</i> and false oat grass <i>Arrhenatherum elatius</i>. Scrub had also begun to colonise the habitat comprising bramble, silver birch saplings, goat willow saplings, hawthorn <i>Crataegus monogyna</i> saplings and alder <i>Alnus glutinosa</i> saplings.	Due to the low species diversity, the small size of the habitat and as it is well represented in the surrounding area, it is considered to be of negligible ecological importance.	

Habitat	Description and Species	Ecological Importance	Photograph
<u>Primary code:</u> Other neutral grassland g3c <u>Essential secondary code:</u> Tall forbs 16	An area of sparse tall forbs was present in the west of the site comprising willowherb species, dandelion, smooth sow thistle <i>Sonchus oleraceus</i>, herb Robert <i>Geranium robertianum</i>, ragwort, bramble, foxglove species <i>Digitalis sp.</i>, wood avens and nipplewort <i>Lapsana communis</i>. Invasive species Japanese knotweed (SD 85437 05157) and Himalayan balsam was also present within this habitat.	Due to the low species diversity, the small size of the habitat and as it is well represented in the surrounding area, it is considered to be of negligible ecological importance.	
<u>Additional secondary code(s):</u> Tree 200	Three semi mature silver birch and goat willow trees were present adjacent to the tall forbs in the west of the site, and one immature cockspur hawthorn <i>Crataegus crus-galli</i> was located in the modified grassland in the east.	Due to the immaturity of the trees, the habitat is considered to be of negligible ecological importance.	
<u>Primary code:</u> Urban u <u>Additional Secondary Code:</u> Introduced shrub 847	A singular dogwood <i>Cornus sanguinea</i> bush was present in the modified grassland.	Due to the small size and ornamental nature of the habitat, it is considered to be of negligible ecological importance.	

Notable Adjacent Habitats

River Irk

- 2.5. The River Irk was located immediately off-site to the south. The river was relatively deep and fast flowing, with reinforced stone and metal banks. The river was surrounded by mature and semi mature woodland, with a large proportion of invasive species Japanese knotweed and Himalayan balsam present. The river could be used as a commuting and foraging feature by local wildlife and is therefore considered to have **local ecological importance**.



Figure 2.2 The River Irk

Protected and Notable Species

- 2.6. The below section sets out the potential for protected species on-site. Species which are considered likely absent from the site based on professional judgement, consideration of the habitats within the site, signs of species presence at the time of survey and data search records, are not discussed.

Amphibians

- 2.7. One record of great crested newt (GCN) *Triturus cristatus* was returned from GMEU, located approximately 1 km north-west of the site associated with a pond in an agricultural field.
- 2.8. No European Protected Species licence for GCN were identified within 2 km following consultation with MAGIC.
- 2.9. No waterbodies were identified within the site and as such, the site will not support GCN within their breeding phase. Three ponds were located within 250 m of the site, which is generally considered to be the typical migratory range of GCN from a waterbody⁹. All three ponds were found to be large fishing ponds and therefore unlikely to support GCN. Furthermore, the majority of the site, namely the hardstanding and modified grassland would not provide suitable terrestrial habitat for GCN.
- 2.10. As such, GCN are considered **likely absent from the site and are not discussed further within the report**.

⁹ Cresswell, W. & Whitworth, R., 2004. *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus: English Nature Research Report 576*. Peterborough: English Nature.



- 2.11. The data search also returned records of common toad *Bufo bufo* within the search area, the closest located approximately 180 m south-east of the site within a fishing pond in Alkington Woods & Rhodes Lodes LNR and SBI.
- 2.12. These more mobile amphibian species may utilise the small areas of suitable habitats on-site, such as the woodland, tall forbs and neutral grassland. The extent of these habitats within the site is however limited and as such, the populations of common amphibians utilising the site will therefore will not be reliant on the site alone.
- 2.13. As such any population of common amphibians such as common toad on-site would be of **negligible ecological importance**. However, consideration for common amphibians during construction to avoid a breach of legislation is discussed in **Section 3** of this report.

Badgers

- 2.14. Records of badger were returned during the data search, however no badger setts were located on-site or within 30 m of the site (where access was possible) during the survey. As such, badger are not currently present within the site. The site does however provide some suitable sett excavation and foraging habitat for the species, by way of the broadleaved woodland on the southern site boundary surrounding the off-site River Irk. Although, these habitats are limited within the site, with hardstanding forming the majority of the site area, which will be of negligible use to the species.
- 2.15. As such, the badger population that may forage on-site is considered to be of **negligible ecological importance**. Nevertheless, consideration for badgers during construction to avoid a breach of legislation is discussed in **Section 3** of this report.

Bats

- 2.16. GMEU returned numerous records of bats, these included common pipistrelle *Pipistrellus pipistrellus*, brown long-eared *Plecotus auritus*, Daubenton's *Myotis daubentonii*, *Myotis* species *Myotis sp.*, noctule *Nyctalus noctula* and soprano pipistrelle *Pipistrellus pygmaeus*. The closest record of a roost was located approximately 285 m north of the site and was a pipistrelle species *Pipistrellus sp.* associated with residential housing
- 2.17. Consultation with MAGIC, identified two granted European Protected Species licences for bats within a 2 km radius of the site. The closest was located approximately 1.8 km south-west of the site at Blackley Cemetery (case reference: 2014-1364-EPS-BDX) which was granted for the destruction of common pipistrelle maternity and non-breeding roost.
- 2.18. As the majority of the site comprised hardstanding and modified grassland, the site provides limited foraging and commuting resources for bats. The woodland on the southern site boundary surrounding the off-site River Irk however does provide a foraging and commuting feature for bats.
- 2.19. Following the Preliminary Roost Assessment, it was concluded that all trees within the site have negligible bat roosting potential.
- 2.20. Overall, the assemblage of bats that may use the site for foraging, commuting and roosting is considered to be of **negligible ecological importance**.



Birds

- 2.21. GMEU returned numerous records of birds within the 2 km search area, three of which were Schedule 1 species; barn owl *Tyto alba*, hobby *Falco subbuteo* and kingfisher *Alcedo atthis*.
- 2.22. The site provides suitable habitat for nesting bird species within the woodland, scattered trees and introduced shrub on-site, however the extent of these habitats are limited.
- 2.23. The site would not provide suitable habitat for barn owl or hobby, however kingfisher may utilise the River Irk on the southern site boundary to forage. The river, where it flows past the site, does not provide suitable habitat for nesting kingfisher.
- 2.24. As such, the bird population on-site is considered to be of **negligible ecological importance**. Nevertheless, consideration for nesting birds during construction to avoid a breach of legislation is discussed in **Section 3** of this report.

Hedgehogs

- 2.25. GMEU returned 41 records of hedgehog *Erinaceus europaeus*, the closest of which was located approximately 160 m north-west of the site on Manchester Old Road.
- 2.26. As the majority of the site comprises hardstanding, the site provides limited suitable cover and foraging resources for the species, which are restricted to the southern boundary woodland. As such, the site is not considered to be important for maintaining hedgehog populations locally, with similar habitat provided in the surrounding area.
- 2.27. As such, it is considered that the hedgehog population on-site is of **negligible ecological importance**.

Reptiles

- 2.28. There was one record of slow worm *Anguis fragilis* returned by GMEU within the 2 km search area, approximately 1.75 km south-west of the site at Blackley Cemetery.
- 2.29. The majority of the site provides no suitable habitat for reptiles by way of the hardstanding and modified grassland. The slow worm record is also separated from the site by the residential area of Higher Blackley and the M60.
- 2.30. As such, reptiles are considered **likely absent from the site and are not discussed further within the report**.

Water Vole

- 2.31. No records of water vole *Arvicola amphibius* were returned in the data search. No aquatic features were present on-site that could support the species, however the River Irk was located immediately off-site to the south. The river was found to be fast flowing, with stone/metal lined embankments along the majority of the river, providing no suitable burrowing habitat for water vole. The river was also heavily shaded from the surrounding woodland and bankside vegetation was sparse, providing no suitable foraging resource for the species.
- 2.32. As such, water vole are considered **likely absent from the site and are not discussed further within the report**.



Otter

- 2.33. One record of otter was recorded approximately 215 m east of the site, associated with a fishing pond within Alkington Woods & Rhodes Lodes LNR and SBI.
- 2.34. No aquatic features were present on-site that could support the species, however the River Irk is located immediately off-site to the south and as such, an Otter Survey was completed. During the survey, the river was found to be fast flowing with stone/metal lined embankments on both sides. No suitable habitats for holt building were identified, and no signs of otter were recorded during the survey. Otter may however infrequently use the river to commute.
- 2.35. As such, it is considered that the otter population using the river is of **negligible ecological importance**.



Section 3: Ecological Impacts, Mitigation, and Enhancement

Proposed Development

- 3.1. The development proposals include the construction of a warehouse unit with associated carparking and landscaping, including neutral grassland, mixed scrub and native hedgerows. The site proposals are shown in **Appendix 1**, with the Landscape Plan shown in **Appendix 2**. The potential impacts at this site as a result of the proposed development are set out below, with reference to relevant legislation and planning policy.

Design Evolution

- 3.2. The design of the development has been iterative, and in accordance with policy and best practice guidance, follows the 'mitigation hierarchy'. As such, the development has been designed to avoid and retain the most important ecological features to ensure they can be managed in the long-term to enhance their importance for biodiversity. Where this is not possible, new habitats have been proposed to compensate for habitat losses with the aim of maximising the overall ecological value of the habitats proposed on-site. A summary of how the design follows the mitigation hierarchy is set out below:

- The development will largely extend over the habitats of **negligible ecological importance** such as the modified grassland, hardstanding, neutral grassland, tall forbs, scattered trees and introduced shrub, the loss of which will require no mitigation.
- The small areas of woodland on the southern site boundary is the only habitat of **local ecological importance** on-site, and is also listed as a Priority Habitat. Priority Habitats should be retained through development, or if this is not possible, replaced within the site. However, due to the very small area of habitat to be lost, approximately 175 m² equating to 9 trees, the loss of this habitat will be mitigated by the provision of 26 proposed native scattered trees within the landscaped areas of the site. Due to the constraints of the site, and as the remaining off-site woodland will be unaffected by the works, this is deemed sufficient mitigation for the habitat loss.

Designated Sites

- 3.3. The site is located approximately 3.3 km west of Rochdale Canal SAC and SSSI. No qualifying species of the SAC are present on-site, and the site is not directly connected to the SAC, with the developed area of Middleton present between the two. The River Irk is present on the southern site boundary, however at no point does the river join Rochdale Canal. It is therefore concluded that the development will not negatively impact the SAC during the construction phase.
- 3.4. In addition, no impacts to designated sites are anticipated as part of the operational phase of the development, given the development comprises a warehouse unit, which will not provide any additional recreational pressure on the designated sites when operational.



- 3.5. Broadman Brook SBI, Alkington Woods & Rhodes Lodes LNR and SBI, and Blackley Forest & Heaton Vale reservoir LNR and SBI are located on the southern site boundary, approximately 35 m east and 1.4 km south-west of the site, respectively. These designated sites are located in close proximity to the site, or are connected to the site by the River Irk. As such, during the construction phase, there could be potential impacts via chemical/fuel run-off or dust deposition. Standard best practice pollution prevention¹⁰ is expected to be incorporated into a Construction Environmental Management Plan (CEMP). These potential impact pathways will therefore be controlled, and impacts to the designated sites will be avoided.
- 3.6. In summary, the production and implementation of a CEMP, to include standard best practice pollution prevention, is expected to be conditioned and therefore prevent impacts to the designated sites above.

Habitats and Flora

- 3.7. The development will largely extend over the habitats of negligible ecological importance such as the modified grassland, hardstanding, neutral grassland, tall forbs, scattered trees and introduced shrub, the loss of which will require no mitigation.
- 3.8. The small areas of woodland on the southern site boundary is the only habitat of local ecological importance on-site, and is also listed as a Priority Habitat. Priority Habitats should be retained through development, or if this is not possible, replaced within the site. However, due to the very small area of habitat to be lost, approximately 175 m² equating to 9 trees, the loss of this habitat will be mitigated by the provision of 26 proposed native scattered trees within the landscaped areas of the site. Due to the constraints of the site, and as the remaining off-site woodland will be unaffected by the works, this is deemed sufficient mitigation for the habitat loss.
- 3.9. Japanese knotweed and Himalayan balsam are present on-site in the west within the tall forbs, and immediately off-site to the south and west. These invasive species are listed on Schedule 9 of the Wildlife and Countryside Act. The areas of Japanese knotweed and Himalayan balsam within the site boundary should be removed by a specialist invasive species contractor prior to the start of works on-site. An existing management regime exists for the invasive species off-site, and as such Precautionary Working Methods will be followed during construction to ensure these species are not spread.
- 3.10. Overall, the development of the habitats with negligible ecological importance, and the provision of neutral grassland, mixed scrub and scattered trees, is anticipated to improve the site overall for biodiversity.

Protected and Notable Species

Amphibians

- 3.11. During any site clearance, any common amphibians uncovered should be moved carefully by hand to a suitably vegetated area outside of construction workings, for example the woodland to the south of the site.

¹⁰ CIRIA (2015) *Construction Work Sector Guidance for Designers*. Fourth edition. (C755D).



Bats

- 3.12. Following the PRA, it was concluded that all trees to be removed as a result of the development have negligible bat roosting potential and as such, no further mitigation for roosting bats is required with regards to these trees.
- 3.13. To enhance the site for roosting bats, two bat boxes are recommended to be incorporated within scheme by erecting bat boxes on mature retained trees in the woodland to the south of the site (expected to be secured via a suitably worded planning condition).
- 3.14. As the majority of the site comprised hardstanding and modified grassland, the site provides limited foraging and commuting resources for bats. The woodland on the southern site boundary surrounding the off-site River Irk however does provide a foraging and commuting feature for bats.
- 3.15. Lighting impacts are a key consideration and can impact the behaviour of bats and other wildlife. It is therefore imperative that new external lighting features associated with the proposed development, and lighting installed during the construction phase, are sensitively deployed and that light spill onto any sensitive areas (woodland and River Irk to the south of the site) are avoided in accordance with relevant guidance. A Lighting Plan will be required to maintain these habitats as dark areas during and post construction.
- 3.16. Through the creation of a dark corridor on the southern site boundary bats, and the inclusion of new landscape planting throughout the site, it is anticipated that the site will be improved for bats post-development.

Badger

- 3.17. No badger setts were recorded on-site, or within 30 m of the site boundary. However, badger may utilise the site to commute and forage.
- 3.18. As there are no badger setts on-site or within 30 m of the site boundary, no mitigation is required for this species. However, due to their transient nature, badger can colonise suitable habitat quickly. It is therefore recommended that an update inspection for this species is completed immediately prior to development works proceeding, to provide an up-to-date assessment of the presence of badger setts, specifically in relation to the woodland to the south of the site. In addition, general protection measures and Precautionary Working Methods for badger, such as covering excavations at night and secure storage of chemicals, should be implemented as part of a CEMP.
- 3.19. Should the above be implemented, the scheme should not have a significant impact on the local badger populations.

Birds

- 3.20. All birds, their nests and eggs, are protected by law and as such it is an offence 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; and intentionally take or destroy the egg of any wild bird.



- 3.21. To avoid triggering the legislation protecting nesting birds, clearance of suitable habitat (woodland, scattered trees and introduced shrub) should be timed outside the nesting bird season (generally taken as March to September inclusive, though this is not defined in law and birds may nest outside of this time). If any clearance works to nesting habitats are required during the nesting season, then pre-removal checks for nesting birds must be carried out by a suitably experienced Ecological Clerk of Works (ECoW), no more than 48 hours prior to the works commencing. If any nesting birds are found to be present, an appropriate buffer zone will be implemented, within which works are excluded for the duration of the breeding attempt. Any active nests will need to be left in situ until a suitably experienced ecologist confirms that the chicks have fledged and the nest is no longer active.
- 3.22. The River Irk may be used by foraging kingfisher, however the river, where it flows past the site, does not provide suitable habitat for nesting kingfisher. As such, best practice pollution prevention methods should be detailed in a CEMP to protect the river during construction. The river should also be maintained as a dark area during and post construction so wildlife is not deterred from using it. This is deemed sufficient to protect the species during the construction and operation of the site.
- 3.23. A series of bird boxes are also recommended to be incorporated within mature retained trees in the woodland off-site to the south, to further improve the site for nesting birds post development (expected to be secured via a suitably worded planning condition).

Hedgehogs

- 3.24. Hedgehog are anticipated to be present in the surrounding area and utilise the woodland to the south of the site. Hedgehog are a Priority Species and therefore afforded consideration in planning policy. Hedgehog are in population decline, and efforts should be made to conserve this species and enhance sites for hedgehog wherever possible, by creating 'hedgehog highways' (appropriately sized gaps under boundary fencing to allow the free movement of hedgehog) and implementing safe working methods within a CEMP, such as:
- Storing construction materials in skips or off the ground in pallets where possible;
 - Ensuring any excavations are sealed overnight, or left ramped or with an exit should any hedgehogs or other small mammals become trapped;
 - Capping any pipework overnight, and;
- 3.25. During any woodland clearance, the habitat should be checked for the presence of the species, and if located, should be carefully moved to a suitably vegetated area outside of construction workings, such as the woodland off-site to the south.

Otter

- 3.26. Following the Otter Survey completed on the River Irk located on the southern site boundary, no suitable habitats for holt building were identified, and no signs of otter were recorded during the survey. Otter may however infrequently use the river to commute.
- 3.27. As such, Precautionary Working Methods for otter will be required during the construction phase, which will be detailed within a CEMP for the site.



Section 4: BNG

- 4.1. Policy G7 of the Rochdale Core Strategy Local Plan 2016, as well as the NPPF, details that no development should result in a net loss of biodiversity.
- 4.2. A development achieves biodiversity net gain when the total biodiversity units present post-development is higher than that of the biodiversity units present on-site prior to development. Defra's 4.0 metric has been used to calculate the biodiversity value of the site before and after development in terms of "biodiversity units" to calculate an overall biodiversity net gain or loss.

Existing Habitats

- 4.3. The following habitats are present within the red line boundary of the site and are shown on Habitat Features Plan **16200/P03**. The site was located within 10 m of the River Irk and as such, river units have been included in the calculation. No baseline linear habitats were present however, linear habitats are included in the proposed development, and are therefore included in the calculation. The baseline habitat and river units are presented in **Table 4.1** and **Table 4.2**.



Table 4.1 Baseline Habitat Units and Areas Retained and Enhanced

Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Area retained (hectares)	Area enhanced (hectares)	Area lost (hectares)
Urban	Developed land; sealed surface	0.36	V.Low	N/A - Other	0	0	0.36
Urban	Introduced shrub	0.002	Low	Condition Assessment N/A	0	0	0.002
Individual trees	Urban Tree	0.0163	Medium	Moderate	0	0	0.0163
Grassland	Other neutral grassland	0.015	Medium	Poor	0	0	0.015
Sparsely vegetated land	Ruderal/Ephemeral	0.047	Low	Poor	0	0	0.047
Grassland	Modified grassland	0.14	Low	Poor	0	0	0.14
Woodland and forest	Other woodland; broadleaved	0.015	Medium	Moderate	0	0	0.015

Table 4.2 Baseline River Units and Lengths Retained

Watercourse type	Length (km)	Distinctiveness	Condition	Watercourse encroachment	Riparian encroachment	Length retained (km)	Length enhanced (km)	Length lost (km)
Other rivers and streams	0.188	High	Fairly poor	Major	Major/minor	0.188	0	0



Proposed Habitats

- 4.4. The Landscape Plan, as shown within **Appendix 2**, has been used to calculate the proposed habitat areas. The proposed habitat and hedgerow units are presented in **Table 4.3** and **Table 4.4** below.

Table 4.3 Created Habitats

Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Target condition
Individual trees	Urban Tree	0.1059	Medium	Moderate
Grassland	Modified grassland	0.0255	Low	Poor
Urban	Developed land; sealed surface	0.45	V.Low	N/A - Other
Urban	Introduced shrub	0.276	Low	Condition Assessment N/A
Grassland	Other neutral grassland	0.053	Medium	Moderate
Heathland and shrub	Mixed scrub	0.0163	Medium	Poor
Net gain of 0.16 habitat units or 22.60%				

Table 4.4 Created Hedgerows

Habitat type	Length (km)	Distinctiveness	Target condition
Native Hedgerow	0.116	Low	Poor
Net gain of 0.22 hedgerow units. No baseline hedgerow units so a percentage gain cannot be calculated			



Results Summary

- 4.5. As detailed within the associated Defra 4.0 metric and summarised below in **Figure 4.1**, based on the habitats present on-site that will be lost and those to be created, the development would result in a gain of 0.16 habitat units, a gain of 0.22 hedgerow units, and the river units would remain the same. This is a percentage gain of 22.60% habitat units. A gain in hedgerow units cannot be calculated as the baseline is zero. This satisfies the requirements of Policy G7 of the Rochdale Core Strategy Local Plan 2016.
- 4.6. Due to the loss of 0.015 ha of broadleaved woodland, the trading rules have not been satisfied. However, the loss of this habitat will be mitigated by the provision of 26 proposed native scattered trees within the landscaped areas of the site. Due to the constraints of the site, and as the remaining off-site woodland will be unaffected by the works, this is deemed sufficient mitigation for the habitat loss.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	0.16
	<i>Hedgerow units</i>	0.22
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	22.60%
	<i>Hedgerow units</i>	N/A
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

Figure 4.1: Biodiversity Net Gain Assessment Results Summary, taken from the Defra 4.0 Metric.

Management

- 4.7. The results of the Defra 4.0 metric are based on the habitats within the site being maintained at a certain condition, as prescribed by the condition assessment sheets published by Defra.
- 4.8. Details of habitat establishment and long-term management will be provided through the production of a Landscape and Ecological Management Plan (LEMP). The LEMP would set out the prescriptions for the establishment and maintenance of the habitats on-site for 30 years.



Section 5: Conclusions

- 5.1. Broadman Brook SBI, Alkington Woods & Rhodes Lodes LNR and SBI, and Blackley Forest & Heaton Vale Reservoir LNR and SBI are located on the southern site boundary, approximately 35 m east and 1.4 km south-west of the site, respectively. These designated sites are located in close proximity to the site, or are connected to the site by the River Irk. As such, standard best practice pollution prevention is expected to be incorporated into a CEMP, to ensure any impacts to the designated sites will be avoided.
- 5.2. No impacts to any other designated sites are anticipated as part of the operational phase of the development, given the development comprises a warehouse unit, which will not provide any additional recreational pressure on the designated sites when operational.
- 5.3. The development will largely extend over the habitats of negligible ecological importance such as the modified grassland, hardstanding, neutral grassland, tall forbs, scattered trees and introduced shrub, the loss of which will require no mitigation.
- 5.4. The small areas of woodland on the southern site boundary are the only habitats of local ecological importance on-site, and are also listed as a Priority Habitat. Priority Habitats should be retained through development, or if this is not possible, replaced within the site. However, due to the very small area of habitat to be lost, approximately 175 m² equating to 9 trees, the loss of this habitat will be mitigated by the provision of 26 proposed native scattered trees within the landscaped areas of the site. Due to the constraints of the site, and as the remaining off-site woodland will be unaffected by the works, this is deemed sufficient mitigation for the habitat loss.
- 5.5. Japanese knotweed and Himalayan balsam are present on-site in the west within the tall forbs, and immediately off-site to the south and west. These invasive species are listed on Schedule 9 of the Wildlife and Countryside Act. The areas of Japanese knotweed and Himalayan balsam within the site boundary should be removed by a specialist invasive species contractor prior to the start of works on-site. An existing management regime exists for the invasive species off-site, and as such Precautionary Working Methods will be followed during construction to ensure these species are not spread.
- 5.6. Following the completion of the Defra 4.0 metric based on the habitats present on-site that will be lost and those to be created, the development would result in a gain of 0.16 habitat units, a gain of 0.22 hedgerow units, and the river units would remain the same. This is a percentage gain of 22.60% habitat units. A gain in hedgerow units cannot be calculated as the baseline is zero. This satisfies the requirements of Policy G7 of the Rochdale Core Strategy Local Plan 2016.
- 5.7. Details of habitat establishment and long-term management will be provided through the production of a Landscape and Ecological Management Plan (LEMP). The LEMP would set out the prescriptions for the establishment and maintenance of the habitats on-site for 30 years.
- 5.8. Due to the low initial importance of the site for fauna and as the habitats to be lost will largely be of negligible importance, the effects on protected species will be minimal.
- 5.9. A CEMP will be required to detail Precautionary Working Methods for badger, hedgehog, otter and kingfisher.
- 5.10. In addition the following mitigation will be required:



- During any site clearance, any common amphibians uncovered should be moved carefully by hand to a suitably vegetated area outside of construction workings.
- A Lighting Plan will be required to ensure the River Irk, and associated woodland corridor on the southern site boundary, will be maintain as dark areas during and post construction, to ensure bats and other wildlife are not deterred from using them.
- A pre commencement check of the woodland on the southern site boundary for badger immediately prior to the start of works should be completed.
- Clearance of suitable habitat (woodland, scattered trees and introduced shrub) should be timed outside the nesting bird season (generally taken as March to September inclusive, though this is not defined in law and birds may nest outside of this time). If any clearance works to nesting habitats are required during the nesting season, then pre-removal checks for nesting birds must be carried out by a suitably experienced ECoW, no more than 48 hours prior to the works commencing.
- A series of bird and bat boxes are recommended to be erected on mature retained trees in the surrounding woodland, to further improve the site for nesting birds and roosting bats post development (to be secured via a suitably worded planning condition).

5.11. In conclusion, in anticipation of the implementation of any necessary mitigation, the proposed development will be compliant with relevant planning policies and legislation as detailed in **Appendix 3** with regard to ecology.



Appendix 1: Proposed Site Plan-4694-RBP-pHp-XX-XX-DR-A- 101 P07 Proposed Site Plan



BUILDING GROSS INTERNAL AREA SCHEDULE

UNIT

Warehouse Area	-	1,752 sqm / 18,858 ft ²
Office Ground Floor	-	56 m ² / 602 ft ²
Office First Floor	-	167 m ² / 1,797 ft ²

Total GIA - 1,975 m² / 21,258 ft²

Internal Haunch Height - 9m

VEHICLE PARKING SUMMARY

Car Parking = 27 Bays (Including 3 Disabled)
Motorcycle Parking (PTW) = 2 Bays
Cycle Shelters = 10 Cycles Spaces

Level Access = 2 Doors

Site Application Boundary = 1.32 Acres / 0.534 Acres

External Finishes Legend

	Concrete Service Yard Concrete slab on sub-base/capping designed to suit ground conditions to Structural Engineer's specification.
	Landscape Areas Refer to Landscape Architect's drawings and Arboricultural Survey to details on proposed landscape design.
	Tarmac Finish Access Roads & Car Park Bays Tarmac road - construction to Structural Engineer's Specification.
	Block Paving Footpaths Permeable block paving footpaths - construction to Structural Engineer's specification.
	Gravel To align pedestrian footpaths around perimeter of building. Gravel margins around perimeter of site.
	Standing Fencing 2.4m High Paladin Security Fence to enclose external service yard area and tie into existing fence line boundary along riverbank. Colour: Dark Green RAL 6005.
	EV Ductwork Electric vehicle charging ductwork installed to car parking bays, for future provision for bays to become EV bays.
	WT Water Tap External manual water tap for landscape watering.
	Trees and Hedges All proposed trees are shown indicatively for illustrative purposes. For detailed information on new, retained and removed planting refer to Landscape Architects drawing and specification.
	Trees to be removed Refer to Landscape Architects drawings for further details.



P07: Updated red line area, amended existing trees to be retained and coordinated with proposed landscape scheme and updated key planning issue.	18.10.23 DM
P06: Updated material profile of condensers, amended red line boundary and updated new proposed and removed trees. Amended tree store and all in situ fence supported by condensers. Added extent of adjacent footpath.	06.10.23 DM
P05: Updated red line boundary and amended trees to be removed. Update red line area.	05.10.23 DM
P04: Updated positions of EV and future EV ducting. Detailed area & notes to warehouse. Updated with additional planting & legend. Updated ground level to broom, updated ground margin.	02.10.23 JB
P03: Updated building position and size, added M&E equipment and tree locations and RPA details. Issued for Comment. Renumbered sheet to 101.	26.09.23 DM
P02: Updated building position in line with river assessment.	12.09.23 JB
P01: First Issue.	04.09.23 JB

Rev	Date	Checked
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t: +44 (0)1604 859916	f: +44 (0)1604 859123	
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Oxenwood Real Estate
Rhodes Business Park
Middletown, Manchester

Proposed Site Plan

Status **PLANNING**

Drawn JB Checked JL

Date **AUGUST 2023**

Project Number: 4694

Project Code Originator Zone Level Info Type Role Dwg No Revision

RBP- pHp-XX-00- DR-A- 101- P07

Scale @ A0 As indicated

Copyright reserved. Dimensions to be checked on site. Discrepancies to be reported before proceeding.

Appendix 2: Landscape Plan-DLA-2203-L-01-RevP02 Soft Landscape Proposals



Planting Schedule

Trees	Qty	Size	Spec	Density
Acer campestre	2	14-16cm girth	Bare root	As shown
Alnus glutinosa	1	16-18cm girth	Root balled	As shown
Alnus glutinosa Imperialis	2	16-18cm girth	Root balled	As shown
Amelanchier arborea 'Robin Hill'	1	2.5-3.0m multi stem	Container grown	As shown
Betula utilis Jacquemontii 'Snow Queen'	4	16-18cm girth	Air pot / Container grown	As shown
Betulus pendula	5	16-18cm girth	Air pot / Container grown	As shown
Carpinus betulus Fastigiata	5	20-25cm girth	Root balled	As shown
Quercus robur	1	16-18cm girth	Root balled	As shown
Sorbus aucuparia	3	16-18cm girth	Root balled	As shown

Climbers	Qty	Size	Spec	Density
Clematis vitalba	2	1.8m high	10Lt on frame	As shown
Hedera canariensis Gloire de Marengo	3	1.8m high	10Lt on frame	As shown
Lonicera periclymenum 'Graham Thomas'	2	1.8m high	10Lt on frame	As shown
Trachelospermum jasminoides	2	1.8m high	10Lt on frame	As shown

Shrubs and Grasses	Qty	Size	Spec	Density
Bergenia Bressingham White	10	15-20cm high	3Lt	7 per sq.m.
Calamagrostis x acutiflora 'Karl Foerster'	63	N/A	3Lt	5 per sq.m.
Choisya x dewitteana 'Aztec Pearl'	34	40-60cm high	5Lt	3 per sq.m.
Choisya ternata Goldfingers	48	40-60cm high	5Lt	3 per sq.m.
Cornus sanguinea	39	60-90cm high	Bare root / 5Lt	3 per sq.m.
Eryngium planum 'Blue Hobbit'	30	N/A	3Lt	5 per sq.m.
Euonymus europaeus	20	60-90cm high	Bare root / 5Lt	3 per sq.m.
Euonymus japonicus 'Green Spire'	36	40-60cm high	3Lt	4 per sq.m.
Ligustrum Aureum	11	40-60cm high	Bare root / 3Lt	3 per sq.m.
Ligustrum vulgare	36	40-60cm high	Bare root / 3Lt	3 per sq.m.
Lonicera pileata	32	30-40cm high	3Lt	3 per sq.m.
Mahonia aquifolium 'Apollo'	12	40-60cm high	5Lt	3 per sq.m.
Microbiota decussata	22	30-40cm high	5Lt	3 per sq.m.
Rosmarinus officinalis 'Miss Jessopp's Upright'	22	30-40cm high	5Lt	4 per sq.m.
Santolina rosmarinifolia 'Lemon Fizz'	13	20-30cm high	3Lt	5 per sq.m.
Stachys byzantina 'Silver Carpet'	30	20-30cm high	3Lt	5 per sq.m.
Viburnum davidii	24	40-60cm high	10Lt	3 per sq.m.
Viburnum opulus	45	60-90cm high	Bare root / 5Lt	3 per sq.m.
Viburnum tinus 'Eve Price'	61	40-60cm high	5Lt	3 per sq.m.

Hedge	Qty	Size	Spec	Density
Planted at 5 per lin m triple staggered rows 450mm apart at 300mm centres	358	60-90cm high	Bare root	5 per lin.m.
Fagus sylvatica				

Native Hedge	Qty	Size	Spec	Density
Planted at 5 per lin m triple staggered rows 450mm apart at 300mm centres - species planted in groups of 5 to 10 All plants to be fitted with a 750mm high Green-Tech Bio-Earth Biodegradable Tree shelter guard and 50mm square softwood stake and tie.				
Acer campestre	18	60-90cm high	Bare root	
Corylus avellana	10%	60-90cm high	Bare root	
Crataegus monogyna	40%	60-90cm high	Bare root	
Euonymus europaea	5%	60-90cm high	Bare root	
Ilex aquifolium	5%	40-60cm high	3Lt	
Ligustrum vulgare	5%	60-90cm high	Bare root	
Prunus spinosa	15%	60-90cm high	Bare root	
Rosa canina	5%	40-60cm high	Bare root	
Ulmus glabra	5%	60-90cm high	Bare root	

Buffer Planting	Qty	Size	Spec	Density
Understorey Planting Mix planted on a 1.0 m grid species planted in groups of 5 to 15 All plants to be fitted with a 750mm high Green-Tech Bio-Earth Biodegradable Tree shelter guard and 50mm square softwood stake and tie.				
Cornus sanguinea	20%	60-90cm high	Bare root	
Corylus avellana	5%	60-90cm high	Bare root	
Crataegus monogyna	15%	60-90cm high	Bare root	
Euonymus europaea	10%	60-90cm high	Bare root	
Ilex aquifolium	10%	40-60cm high	3Lt	
Lonicera periclymenum	5%	40-60cm high	3Lt	
Malus sylvestris	5%	60-90cm high	Bare root	
Prunus spinosa	5%	60-90cm high	Bare root	
Rosa canina	5%	40-60cm high	Bare root	
Sambucus nigra	5%	60-90cm high	Bare root	
Taxus baccata	5%	40-60cm high	5Lt	
Viburnum opulus	10%	60-90cm high	Bare root	

5 Carpinus betulus Fastigiata
75 Fagus sylvatica
22 Microbiota decussata
30 Stachys byzantina 'Silver Carpet'

2 Alnus glutinosa Imperialis
3 Betulus pendula
25 Cornus sanguinea
45 Viburnum opulus
37 lin m Native Hedge

20 Euonymus europaeus
24 Viburnum davidii
42 Viburnum tinus 'Eve Price'
15 Eryngium planum 'Blue Hobbit'
24 Choisya ternata Goldfingers

22 Rosmarinus officinalis 'Miss Jessopp's Upright'
15 Eryngium planum 'Blue Hobbit'
1 Amelanchier arborea 'Robin Hill'
24 Choisya ternata Goldfingers

50 Fagus sylvatica

3 Calamagrostis x acutiflora 'Karl Foerster'
13 Calamagrostis x acutiflora 'Karl Foerster'
48 Fagus sylvatica
3 Betula utilis Jacquemontii 'Snow Queen'
22 Choisya x dewitteana 'Aztec Pearl'
13 Santolina rosmarinifolia 'Lemon Fizz'
7 Viburnum tinus 'Eve Price'
185 Fagus sylvatica

2 Betulus pendula
1 Alnus glutinosa

25 Calamagrostis x acutiflora 'Karl Foerster'
3 Sorbus aucuparia
12 Viburnum tinus 'Eve Price'

10 Bergenia Bressingham White
12 Choisya x dewitteana 'Aztec Pearl'
1 Betula utilis Jacquemontii 'Snow Queen'
22 Calamagrostis x acutiflora 'Karl Foerster'

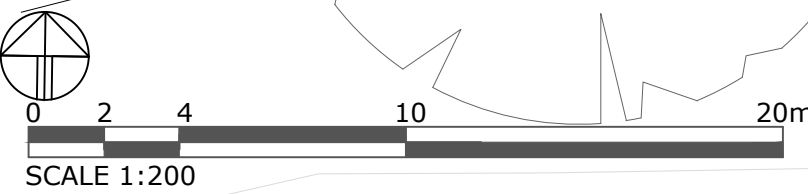
36 Euonymus japonicus 'Green Spire'
11 Ligustrum Aureum
Climbers
2 Trachelospermum jasminoides
2 Clematis vitalba
2 Lonicera periclymenum 'Graham Thomas'
3 Hedera canariensis Gloire de Marengo

1 Quercus robur

36 Ligustrum vulgare
13 Lonicera pileata
1 Acer campestre

14 Cornus sanguinea
12 Mahonia aquifolium 'Apollo'
19 Lonicera pileata
1 Acer campestre

- Planning Application Boundary
- Existing Trees to be Removed
- Proposed Trees
- Proposed Native Buffer Planting Mix
- Proposed Shrub Planting
- Proposed Native Hedgerow
- Proposed grasscrete with Emorsgate EL1 Flowering lawn mix
- Emorsgate EL1 Flowering lawn mix
- Emorsgate EG22 grass mix
- Emorsgate EW1 Woodland mix
- Retained vegetation



Appendix 3: Legislation and Planning Policy

Legislation

- A3.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:
- The Environment Act 2021;
 - The Wildlife and Countryside Act (WCA) 1981 (as amended);
 - The Conservation of Habitats and Species Regulations 2017 (as amended);
 - The Countryside and Rights of Way (CROW) Act 2000;
 - The Natural Environment and Rural Communities Act (NERC) 2006;
 - The Hedgerows Regulations 1997; and
 - The Protection of Badgers Act 1992.
- A3.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).
- A3.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.
- A3.4. The CROW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

Environment Act 2021: Upcoming Town and Country Planning Act

- A3.5. The Environment Act gained Royal Assent in November 2022. Whilst the premise of Biodiversity Net Gain (BNG) has been around prior to this, the Assent of the Act sets the Framework for future legislation to be changed. This will be in the form of the Town and Country Planning Act (TaCPA), specifically Schedule 14 of the TaCPA, which will make Biodiversity Net Gain a condition of planning (not a planning condition). The target 'gain' is currently set at 10% but the Secretary of State has the ability to change this.
- A3.6. The timescales for changes to the wording of the TaCPA are that it will be legally mandated and enforceable from January 2024.



National Planning Policy

National Planning Policy Framework (NPPF), September 2023

- A3.7. The National Planning Policy Framework (NPPF) was updated in September 2023 and sets out the Government's planning policies for England and how these should be applied. It replaces the first National Planning Policy Framework published in March 2012.
- A3.8. Paragraph 11 states that:
- "Plans and decisions should apply a presumption in favour of sustainable development."*
- A3.9. Section 11 of the NPPF, paragraph 120, sub-section b states that planning policies and decisions should:
- b) *"recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production"*
- A3.10. Section 15 of the NPPF (paragraphs 174 to 188) considers the conservation and enhancement of the natural environment.
- A3.11. Paragraph 174 states that planning and decisions should contribute to and enhance the natural and local environment by:
- a) *"protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
c) *maintaining the character of the undeveloped coast, while improving public access to it where appropriate; and*
d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*
- A3.12. Paragraph 175 states that plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
- A3.13. Paragraph 179 states that in order to protect and enhance biodiversity and geodiversity, plans should:
- a) *"Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity¹¹;*

¹¹ Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.



wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation¹²; and

- b) *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*

A3.14. When determining planning applications, Paragraph 180 states that local planning authorities should apply the following principles:

- a) *“if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons¹³ and a suitable compensation strategy exists; and*
- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”*

A3.15. As stated in paragraph 181 the following should be given the same protection as habitats sites¹⁴:

- a) *“potential Special Protection Areas and possible Special Areas of Conservation;*
- b) *listed or proposed Ramsar sites¹⁵; and*
- c) *sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.”*

A3.16. Paragraph 182 states that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

¹² Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them.

¹³ For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

¹⁴ The policies referred to are those in this Framework (rather than those in development plans) relating to: habitats sites (and those sites listed in paragraph 181) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 68); and areas at risk of flooding or coastal change.

¹⁵ Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site.



Local Planning Policy

Rochdale Core Strategy Local Plan 2016¹⁶

G7 - Increasing the value of biodiversity and geodiversity

- A3.17. We will ensure that sites and features of biodiversity and geodiversity importance are given full and appropriate recognition and protection. Opportunities for enhancing biodiversity and geodiversity, creating new sites and features of interest and improving opportunities for public enjoyment will be supported. No development should result in a net loss of biodiversity or geodiversity interest in the borough and overall development in the borough should result in a net gain.
- A3.18. Particular priorities for biodiversity and geodiversity are:
1. The South Pennine Moors - our focus is to maintain and enhance the peatland habitats of the moorland and to support development, land and water management activities which provide an opportunity to conserve and enhance the value of moorland for upland breeding birds of conservation significance and the habitats on which they depend and which do not harm biodiversity value. Our focus is the designated Special Protection Area and Special Area of Conservation but also the wider moorland where such interest is present or could be supported through appropriate development or land management. We will also protect and support enhancement measures for areas of geodiversity value.
 2. The Rochdale Canal - our focus is to ensure that the Rochdale Canal Special Area of Conservation and the wider biodiversity interest of the canal is given full and appropriate protection and ensure that development which delivers the economic and recreational value of the Rochdale Canal and its wider corridor supports and does not harm its biodiversity value.
 3. Upland farmland - our focus is to ensure that the biodiversity interest of upland farmland including its value for birds, woodland and grassland is protected and opportunities for enhancement and the creation of new interest maximised through land management improvements and appropriate development activities.
 4. Countryside around towns - our focus is to protect and enhance the biodiversity interest of river valleys, woodland, water and farmland including the reclamation of derelict and neglected land and flood risk management measures. We will also support actions which enhance public access and enjoyment of countryside close to urban areas including Local Nature Reserves and the wider countryside.
 5. Urban Areas - our priority is to protect and enhance existing urban biodiversity and to support opportunities for new urban biodiversity corridors, sites and features including sustainable urban drainage schemes, new public realm provision, street trees and urban woodlands, ponds and lodges, green roofs and natural play areas.
 6. Designated sites of ecological importance - will be given appropriate protection according to their European, national or local status and in accordance with policies in other development plan documents, supporting Supplementary Planning Documents and Biodiversity Action Plans.

¹⁶ <https://www.rochdale.gov.uk/downloads/file/405/core-strategy>



7. Protected Species: Development proposals which would affect a species protected by law or its habitat will not be permitted unless it can be demonstrated that:

- a. there is no adverse impact on the species concerned;
- b. damage to habitats is minimal and alternative habitat provision is effective in maintaining those species.

A3.19. Opportunities to protect, enhance and create features of biodiversity or geodiversity interest should be informed by the detail of any formal designation of a site or area and supporting plans and guidance such as Local Biodiversity Action Plans, Green Infrastructure Strategies and Action Plans and the Council's Biodiversity and Development SPD.

A3.20. We will expect development proposals and improvements to:

- a. Protect and include existing biodiversity (including established biodiversity interest on brownfield land) within new developments, public realm and open spaces and meet the requirements of the Biodiversity and Development SPD, Greater Manchester and Local Biodiversity Action Plans;
- b. Protect and enhance existing features such as peatland, ponds, wetlands, reservoirs, mill lodges, trees, hedges, wooded areas, meadows, flora and fauna;
- c. Take opportunities to promote biodiversity and create new habitats through new development using landscaping and building and construction features wherever possible (e.g. ponds, species of vegetation, green roofs and walls, bat boxes, roof space, appropriate nest boxes and landscaping);
- d. Enhance strategic wildlife corridors and the most natural areas and ensure that habitats and corridors are not fragmented by development;
- e. Improve access where appropriate to new or existing biodiversity interest for public enjoyment; and
- f. Protect important geology and take opportunities to increase interest and accessibility.

Greater Manchester Biodiversity Actions Plan (2009)¹⁷

Species:

A3.21. Bats, black redstart *Phoenicurus ochruros*, farmland birds, great crested newts *Triturus cristatus*, hares *Lepus europaeus*, native black poplar *Populus nigra*, twite *Linaria flavirostris*, water vole *Arvicola amphibius* and willow tit *Parus montanus*.

Habitat:

A3.22. Grasslands, hedgerows, lowland mosslands, reedbeds and bittens, ponds and lodges, canals, native woodlands, uplands and urban managed greenspaces.

¹⁷ <https://www.northyorks.gov.uk/sites/default/files/2023-07/Selby%20Biodiversity%20Action%20Plan%20Aug%202004.pdf>



Appendix 4: Methodology and Results

Data Search

- A4.1. A desk-based study was conducted whereby records of designated sites and records of protected and priority species were purchased and interrogated for the site and the surrounding landscape. The aim of the data search is to collate existing ecological records for the site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.
- A4.2. The following resources were consulted/contacted:
- Multi-Agency Geographic Information for the countryside (MAGIC) website¹⁸;
 - Greater Manchester Ecology Unit (GMEU); (Data ordered on 19/09/2023 and received on 09/10/2023);
 - Rochdale Borough Council website¹⁹;
 - Joint Nature Conservation Committee (JNCC) website²⁰;
 - Natural England (NE) designated sites website²¹;
 - Ordnance Survey mapping;
 - Google Maps, including aerial photography;
- A4.3. The following areas of search around the boundary of the site boundary were applied:
- 2 km for protected and priority species, national statutory designated and non-statutory sites; and
 - 10 km for European statutory sites.

¹⁸ <https://magic.defra.gov.uk/> [Accessed October 2023]

¹⁹ <https://www.rochdale.gov.uk/> [Accessed October 2023]

²⁰ <http://jncc.defra.gov.uk/ProtectedSites/> [Accessed October 2023]

²¹ <https://designatedsites.naturalengland.org.uk/> [Accessed October 2023]



'Extended' Phase I Habitat Survey and UKHabs

- A4.4. An 'Extended' Phase 1 Survey was carried out on the 12th September 2023, by Olivia McKechnie BSc (Hons), a suitably experienced ecologist and qualifying member of CIEEM. The methods used during the walkover survey broadly followed methods used in an 'Extended' Phase I Habitat Survey²² and entailed recording the main plant species and classifying and mapping habitat types with reference to the Habitat Definitions provided by the UK Habitat Classification Working Group²³.
- A4.5. Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in order to assess the site within the wider landscape and to provide information with which to assess possible impacts within the context of the site boundary.
- A4.6. All habitats were assessed utilising the relevant condition criteria for the relevant habitat type under Metric 4.0, which included confirming 'pass' / 'fail' criteria taken from the UK Habitat/Phase 1 methodology where necessary.

Preliminary Roost Assessment (PRA)

- A4.7. A PRA was undertaken on trees of relevance to this assessment. The assessment was undertaken on the 12th September 2023 and 24th October 2023 by Olivia McKechnie BSc (Hons). All surveys were daytime inspections and the conditions for all surveys was considered optimal. All trees were inspected from the ground using binoculars and high-powered torch for accessible features. In relation to trees, such features may include woodpecker holes, frost cracks, deadwood, knot holes and limb wounds.
- A4.8. The potential of each tree at the site and immediately adjacent to the site to support roosting bats have been categorised against the criteria described in **Table A4.1**.

Table A4.1 Roost Assessment Criteria²⁴

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for long periods of time due to their size, shelter, protection conditions and surrounding habitat.

²² Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.

²³ Butcher, B., Carey, P., Edmons, R., Norton, L. and Treweek, J. (2020). UK Habitat Classification – Habitat Definitions V1.1

²⁴ Adapted from: Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. The Bat Conservation Trust, London



A4.9. Results of the PRA are detailed in **Section 2** of this report.

Biodiversity Net Gain

A4.10. The Biodiversity Metric 4.0 metric operates by calculating the number of biodiversity units associated with a particular habitat type (both pre-and post-development) – the ‘unit’ value associated with each habitat type is calculated based on the following parameters:

- Size (in hectares)/Length (in km);
- Distinctiveness (i.e. how rare/valuable a given habitat is);
- Condition (i.e. how well the recorded habitat fits [or will fit] the standardised description of that habitat); and
- Strategic significance (i.e. if the existing or proposed habitat is within an area formally adopted in the local plan for green infrastructure or biodiversity improvements).

A4.11. When considering the creation of new habitats in the post-development site, other factors are also considered when calculating the ‘unit’ value of a given habitat and these are:

- Time to reach the target condition of each habitat; and
- Difficulty category for the creation of a given habitat.

A4.12. A calculation has been undertaken using the baseline habitats identified during habitat condition assessment survey, which was carried out on the 12th September 2023, by Olivia McKechnie BSc (Hons), alongside the ‘extended’ Phase 1 survey above.

A4.13. The UK Habitat Classification was used to identify habitat types. Note that the calculation is completed separately for non-linear and linear habitats. Habitat areas entered into the Defra 4.0 metric in hectares were rounded to two decimal places.

A4.14. Due to the proximity of the River Irk to the site, a Modular River Physical (MoRPh) Survey was completed to calculate the baseline and post-development river units on-site. The methodology and results of the survey are detailed in **Appendix 6**.

Evaluation

A4.15. The evaluation of habitats and species is defined in accordance with published guidance²⁵. The scale of importance of each ecological feature is assigned within a defined geographical context, namely international and European, national, regional, county, and local. Below these are features considered to be of negligible importance.

A4.16. Consideration will also be given to legally protected or controlled species which are ‘important features’ in the context of this assessment, for which mitigation measures are required to ensure legal compliance, regardless of their

²⁵ CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.



geographic scale of importance. Thus, it is possible for a feature of negligible ecological importance to be legally protected and hence require mitigation.

- A4.17. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as Sites of Species Scientific Interest (SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

Impact Assessment

- A4.18. The assessment of impacts identifies impacts and their effects as a result of the proposed development on important ecological features. This includes consideration of impacts at all relevant stages of the development, including construction and operation/occupation. The assessment includes reference to legislation and policy, and supplementary planning guidance where relevant.

Application of Mitigation Hierarchy

- A4.19. Application of the mitigation hierarchy is fundamental to the ecological impact assessment process. This requires consideration of the following measures, in order of priority, for all potential impacts, to determine the most appropriate mitigation, compensation and enhancement strategy for the project. This is taken into account within **Section 3** of this report and set out below:

- Avoidance – measures to avoid harm to ecological features (set out in ‘Design Evolution’, **Section 3**);
- Mitigation – measures to avoid or minimise potential impacts as part of the design or guaranteed by planning controls;
- Compensation – measures required to offset significant residual negative effects following avoidance and mitigation; and
- Enhancement – measures over and above requirements for avoidance, mitigation and compensation to provide biodiversity net gain.



Appendix 5: Otter Legislation, Methodology and Results

Legislation and Conservation Status

- A5.1. Otters are protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017²⁶ and under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence, with certain exceptions, to:
- Intentionally or deliberately capture, kill, or injure an otter;
 - Intentionally or recklessly damage, destroy, and disturb otters in a place used for shelter or protection, or obstruct access to such areas;
 - Damage or destroy an otter breeding site or resting place;
 - Possess an otter, or any part of it, unless acquired lawfully; and
 - Sell, barter, exchange, transport, or offer for sale an otter or parts of them.
- A5.2. Actions that are prohibited can be made lawful by a licence issued by the appropriate Statutory Nature Conservation Organisation.
- A5.3. Otters are a Priority Species in the 'UK Post-2010 Biodiversity Framework which provides a statutory list of priority species in England, Scotland, Wales and Northern Ireland, as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England), Section 7 of the Environment (Wales) Act 2016, Section 2(4) of the Nature Conservation (Scotland) Act 2004, and Section 3(1) of the Wildlife and Natural Environment Act (Northern Ireland) 2011. Decision-makers such as Local Planning Authorities must have regard to Priority species in all their activities, including when making decisions on planning applications.

Methodology

Habitat Evaluation

- A5.4. In addition to the Otter Survey, data relating to the quality of identified water features was reviewed so that a general assessment could be made as to the suitability of the habitat for otter. This involved a review of the aerial maps and data searches in local records.
- A5.5. Factors that are likely to influence the survival of local otter are judged to be of the greatest importance when evaluating habitat value. As otter populations may be limited by prey abundance, areas possessing or allowing access to optimal foraging habitat are judged to be of key importance. Areas possessing sub-optimal foraging habitat but that have other habitat qualities (e.g. low levels of disturbance and dense riparian cover) are of lesser importance, as they are less likely to be vital to local otter survival²⁷. Details of how values of importance to the local otter population were derived are given below:
- Very High Value – A locally unique key resource, vital for maintenance of existing otter population.

²⁶ Natural England standing advice on otters at <https://www.gov.uk/guidance/otters-advice-for-making-planning-decisions> [Accessed October 2023]

²⁷ Kruuk, H., Carss, D.N., Conroy, J.W.H. and Durbin, L. (1993). Otter (*Lutra lutra*) Numbers and Fish Productivity in Rivers in North East Scotland. *Symposium of the Zoological Society*, **65**, 171-191.



- High Value - Optimal foraging habitat owing to locally abundant prey items coupled with low disturbance and suitable riparian habitat for cover and lying-up sites i.e. holts and couches.
- Medium Value - Despite abundant prey items, location is considered sub-optimal due to either moderate disturbance levels or poor riparian habitat for cover and/or lying-up-sites.
- Low Value - Location offers marginal food resources and/or poor habitat/cover and/or suffers from substantial disturbance.

Presence/absence

- A5.6. The Otter Survey was conducted on the 4th October 2023 and was led by Nick Bell ACIEEM, who is appropriately experienced in conducting this type of survey, with assistance from David Paton, QCIEEM. Surveys followed published guidelines ²⁸ and weather conditions were 13 degrees, cloudy and dry. The extent of the survey area is illustrated on **Plan 16200/P04** and included 500 m from the application boundary up and down stream. Otter Surveys are valid at anytime of year, but a period of five days without significant rainfall prior to the visit is aimed for to ensure field signs are not washed away. Whilst it is possible to complete Otter Surveys throughout the year, otters are shown to use holts and resting structures more often during December to May²⁹.
- A5.7. In general, the survey focussed on terrestrial and riparian features assessed up to 5 m from the waters' edge or 10 m from the bank top, whichever is greater adjacent to the site, with additional checks for surrounding suitable habitat up to 500m from site upstream and downstream as mentioned above. Where otter signs were abundant or showed regular path use by otters, the survey was extended to include adjacent habitats suitable for holt, natal holts and resting places.
- A5.8. A search was made for field signs indicating the presence of otters including spraints, prints, runs / pathways, slides and holts. Field signs are recorded by type, location, condition and age to determine habitat use and activity. Where it was safe, the water feature was entered to fully assess the bank. Where it was not safe to enter the water, just the bank tops were be searched. Field signs include:
- **Holts** - Denning areas that vary greatly in size from enlarged rabbit holes to tree root cavities in banks and rock piles. Often heavily marked by spraint, although natal holts (for rearing young) can be cryptic and have few identifying features;
 - **Slides** - Bank slides typically 200 mm wide but much wider with heavy use. Tracks may be present where otters have propelled themselves;
 - **Nests / Couches** - These occur close to the waters edge, in vegetated banks and marshes. Recognised by an area of flattened and twisted grass or soil. May have evidence of feeding remains;
 - **Spraint / faeces** - Irregular, sometimes short, rounded segments, sometimes flattened, containing fish bones, scales and cray fish parts. When fresh they are often greenish and slimy, turning grey and brittle with age. Most often found on banks or on raised features such as logs, rocks and headwalls;
 - **Latrines** - Often found in high places similar to the individual spraints above, but with flattened vegetation and multiple scats. Used for territory marking; and
 - **Footprints** - Five toes on front and rear tracks with the front track often being wider and rounder than the rear. Asymmetry or toe and interdigital pads can often be an indicator between dog and otter, with toes fanning out. The claws, if present, are blunt. Approximately 60 mm wide from base of track and 90 mm long.

²⁸ : Chanin P (2003). *Monitoring the Otter* Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature, Peterborough.

²⁹ Findlay, M. A., Briers, R. A. & White, P. J. C. (2020) Component processes of detection probability in camera-trap studies: understanding the occurrence of false-negatives. *Mammal Research*, **65**, 167—180.



Limitations

- A5.9. The watercourse was found to have reinforced banks and was very fast flowing. It was therefore not safe to enter the watercourse to complete the assessment. However, a path was present that followed the river, with the banks visible from the path. This is therefore not thought to pose a major constraint to assessment.
- A5.10. Rain showers were recorded the day before the survey and therefore may have washed some field sign away. However, the rain was light and, due to the attributes of the river, i.e. reinforced banks with high disturbance, the habitat provided are not optimal for otter, with no potential holt locations found. As such, the recording of light rain the day before the survey is not thought to have affected the surveys results.

Results

- A5.11. The river was found to be fast flowing with stone/metal lined embankment on both sides, with an approximate depth of 30 cm to 1 m. The reinforced stone embankments had collapsed on the southern embankment adjacent to the site with some natural/sandy embankments present. However, the water flow was rapid, with no suitable habitats for holt building were identified, and no signs of otter recorded during the survey.



Appendix 6: Modular River Physical (MoRPh) Survey

Methodology

- A6.1. The River Irk is present immediately adjacent to the site and running along the southern site boundary. A River MoRPh survey was undertaken on 4th October 2023 by David Paton, a Qualifying Member of CIEEM, suitably experienced field ecologist and MoRPh accredited surveyor, and assisted by Nick Bell, an Associate Member of CIEEM and suitably experienced field ecologist.
- A6.2. The methodology was based upon that set out in The MoRPh Survey Technical Reference Manual 2022³⁰. This survey is undertaken on at least 20% of the total river length adjacent to the site. The surveys assessment information on short lengths (or modules) of a river that are approximately twice the river width. A subreach survey is comprised of five contiguous MoRPh module surveys to gather information for subreaches 50, 100, 150 and 200 m in length (250 m for canals, navigable and large rivers) according to the width of the river. MoRPh surveys included the river and all habitat within a radius of 10 m of the watercourse. The data recorded in each module to assess condition is comprised of 32 condition indicators, split between four morphological features (Bank Top, Bank Face, Channel- Water Margin and Channel Bed) and their relative abundances (Absent, Trace, Present or Extensive) within each MoRPh module.

Results

- 5.12. Immediately adjacent to the southern site boundary, a section of the River Irk is present. This channel runs for approximately 175 m along the boundary of the site, and is an open river channel with no enclosed/culverted sections situated within the edge of a woodland. See **photograph A6.1** below.



Photograph A6.1 – Section of the River Irk channel adjacent to the southern site boundary.

- 5.13. The pre-development MoRPh survey and assessment returned a condition of **fairly poor** with an index score of - 0.522, see **Table A6.1** below. The current baseline was found to be heavily encroaching on the river channel,

³⁰ Gurnell, A., Shuker, L., England, J., Wharton, G., and Gurnell, D. (2022). The MoRPh Survey Technical Reference Manual Version 13.



resulting in major encroachment of the watercourse and moderate encroachment of the riparian zone. A full breakdown of the river condition assessment is available in Excel format on request.

Index	Scores
Positive Index Average	1.632
Negative Index Average	-2.154
Preliminary Score (Positive index + Negative Index)	-0.522
River Type	Type F
Condition Score	Fairly Poor



Plans

Plan 1: Habitat Features Plan 16200/P03

Plan 2: Otter Survey Plan 16200/P04





- Key
- Himalayan balsam
 - Japanese knotweed
 - Redline boundary
 - Scattered tree
 - Introduced shrub
 - Modified grassland
 - Hardstanding
 - Tall forbs
 - Neutral grassland
 - Broadleaved woodland - semi-natural



Project	Rhodes Business Paek
Drawing Title	Habitat features Plan
Scale	As Shown (Approximate)
Drawing No.	16200/P03
Date	31st October 2023
Checked	LJ/OM



3 Jordan Street, Deansgate, Manchester, M15 4PY
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Key

Redline boundary

Otter survey extent



Project	Rhodes Business Park
Drawing Title	Otter Survey Plan
Scale	As Shown (Approximate)
Drawing No.	16200/P04
Date	31st October 2023
Checked	LJ/OM



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An abstract collage on a dark blue background. A large yellow hexagon is the central focus. Surrounding it are various geometric shapes: a light blue pentagon, a purple arrow pointing down, a purple asterisk, a black hand icon, a black leaf, a black triangle, a black circle with white segments, and a black triangle with a yellow dot pattern. The text "Step into our world" is written in a bold, black, sans-serif font across the yellow hexagon.

Step into our world

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