

WHARTON

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Arboricultural Impact Assessment

SITE LOCATION

Hollingworth Lake Camp Site

ISSUE DATE

14th December 2021

OUR REFERENCE

211203 1340 AIA V1

PREPARED FOR

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Signature			
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Signature			
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Position	Director		
Signature			
Client number	1340		

The detail provided within this report is a true and accurate reflection of both the Site conditions at the time of survey, as well as the professional opinion of the Principal Author.



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1. Introduction

1.1 Terms of instruction

- 1.1.1 This Arboricultural Impact Assessment (AIA) has been commissioned by Rochdale Borough Council ('the Client'). The AIA has been prepared in relation to the Proposed Scheme at land off Syke Road, Littleborough ('the Site') (see Red Line Boundary Plan at Appendix 1).
- 1.1.2 Trees may form a constraint to the Proposed Scheme and therefore a detailed tree survey and arboricultural report was undertaken in accordance with BS5837:2012 (Trees in Relation to Design, Demolition and Construction: Recommendations) to fulfil the requirements of the Local Planning Authority (LPA), Rochdale Metropolitan Borough Council (RBC), who require an AIA to make an informed decision on our client's full planning application. The assessment considered trees directly on-site or within influencing distance of the Site (based on the surveyor's discretion).
- 1.1.3 Should the LPA be minded granting planning permission, an Arboricultural Method Statement (AMS) should be conditioned to ensure sufficient protection of retained trees.

1.2 Scope of project

- 1.2.1 The scope of assessment detailed within BS5837 broadly comprises three stages, these are:
- i. Undertake a survey of trees on the Site and within influencing distance of the Site to fulfil the requirements of BS5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations.
 - ii. Provide a Tree Constraints Plan for the Site including Root Protection Areas (RPA) and canopy spreads.
 - iii. Provide an AIA to evaluate the effects which are likely to arise from a final design layout implementation and identifies mitigation for the direct and indirect impacts on retained trees.



2. Site Overview

2.1 Site description

- 2.1.1 The tree assessment was undertaken on 25th November 2021 by Elva Preston (Wharton Arboricultural Consultant) and the trees were inspected from ground level. Weather at the time of survey was clear and bright, there were no limitations to the assessment.
- 2.1.2 The Site comprises a contained grassed field compartment accessed to the south off Syke Road, via an existing access track and entrance way serving Hollingworth Fold Cottage (see land within the red line boundary on Appendix 1), known herein as 'the Site'. The Site is centred approximately at OS National Grid Reference SD 94268 14865 and lies c.4.4km west of Rochdale. The Site is c. 0.26ha in size.
- 2.1.3 The Site is bordered immediately to the north by agricultural land (assumed semi-improved grassland), east by a copse of ornamentally planted, mixed deciduous trees, and west by a private, enclosed garden.
- 2.1.4 Most of the trees assessed were positioned around the edge of the Site, demarking the boundaries, with a small number of trees situated within influencing distance of the site yet considered off-site, within third-party land.

2.2 Statutory and Non-Statutory Designations

National Planning Policy Framework (NPPF) (July 2021)

- 2.2.1 When determining planning applications, Local Planning Authority's (LPA) should apply the following principles from the NPPF:
- ***Paragraph 131***
"Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible."
 - ***Paragraph 174 (B & D)***
"Planning policies and decisions should contribute to and enhance the natural and local environment by:
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;
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."
 - ***Paragraph 180 (A, C & D)***
"When determining planning applications, 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;



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 reasons⁶³ 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."

Local Planning Policy

- 2.2.2 The Core Strategy for RBC¹ was adopted on 19 October 2016. It's the lead document in the Local Plan. The Unitary Development Plan from our 1996-2016 Local Plan is still in place until our Allocations Development Plan is adopted.

Tree Preservation Orders and Conservation Areas

- 2.2.3 RBC is responsible for implementing any legal controls imposed through Tree Preservation Orders (TPOs) and Conservation Areas within the study area. The statutory status of arboricultural features within the study area was checked using the Council's online register² on 03 December 2021. RBC do not have an online record of any trees subject to a TPO. To establish this information, the local authority will need to be contacted via email. At the time of writing this assessment, the presence of any TPOs has not been confirmed.
- 2.2.4 The arboricultural desk study confirmed that the Site is situated within a Conservation Area, namely Hollingworth Fold Conservation Area, 1982 and therefore, the trees within the Site are subject to a statutory constraint.

Relevant wildlife legislation

- 2.2.5 The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Species and Habitat Regulations 2017 (as amended) provide statutory protection of birds, bats and other species that can inhabit trees. The Natural Environment and Rural Communities Act 2006 (Section 41 England and Section 42 Wales) also places a duty on Local Planning Authorities to consider biodiversity when carrying out their duties. The Conservation of Habitats and Species Regulations 2017 specifically provides safeguards for European Protected Sites and Species (as listed in the Habitats Directive). This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 which continue the same provision for European protected species, licensing requirements, and protected areas now that the UK has left the European Union.
- 2.2.6 Great care is required to avoid an offence under the above legislation, and consideration should be given to the potential presence of protected species within a tree subject to future works. Where the presence of protected species is suspected, the project ecologist or Natural England should be contacted for advice before works proceed.

Felling Licence

- 2.2.7 Tree felling is also restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence for "*Felling trees immediately required for the purpose of carrying*

¹ Rochdale Borough Council, Core Strategy [Online]. Available at < <http://www.rochdale.gov.uk/planning-and-building/local-planning-policy/the-local-plan/core-strategy/Pages/default.aspx> > (Last Accessed. December 2021)

² Rochdale Borough Council, 2021. Conservation Areas in the Borough of Rochdale [Online]. Available at: < <http://www.rochdale.gov.uk/planning-and-building/heritage-and-conservation/Pages/conservation-areas.aspx> > [Last Accessed. 03 December 2021]



out development authorised by planning permission (granted under the Town and Country Planning Act 1990) ..."

- 2.2.8 If full planning permission is granted, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

3. Proposed Scheme

3.1 Description

- 3.1.1 The Proposed Scheme is for the construction of 10no. "Glamping" Pods set on individual footings, and which will be accessed via a new network of linked stone paving paths, with the existing vehicular track set to be widened and leading on to a proposed area of car parking, including disabled parking provision. The existing toilet block will be demolished as part of the Proposed Scheme.

3.2 Reference documents

- 3.2.1 As background information, the following documentation has been referenced in *Table 1* below.

Table 1 Document and Plans Provided

Document Description	Reference No.	Prepared By	Date
Topographical Survey	211007 20G227_2D	Unknown	2021
Proposed Plans	Feasibility Study Option 03	Highways, Property & Strategic Housing	May 2021

4. Arboricultural Survey Results

4.1 Method of data collection

- 4.1.1 The trees on the Site were originally surveyed without reference to the site layout as detailed in Clause 4.4.1.1 of BS5837:2012. However, for the purposes of this arboricultural assessment, the design of the Proposed Scheme has been considered.

- 4.1.2 The survey recorded trees either as individual specimens or as groups, where these trees were aerodynamically, culturally, or visually important as groups. The tree numbers associated with each tree are cross-referenced within the schedule and plans at Appendix 3 and 4 respectively. The complete method of data collection for the tree survey is provided at Appendix 2.

4.2 Summary of data

- 4.2.1 A total of 5no. individual trees and 7no. groups of trees were surveyed. This included 1no. category A, 8no. category B and 3no. category C arboricultural features. Tree T3 has been omitted from this assessment.
- 4.2.2 A breakdown of trees surveyed with the BS5837:2012 retention category is given in *Figure 1* below. The comments for each tree vary and are given in detail in the BS5837:2012 Tree Schedule at Appendix 3.

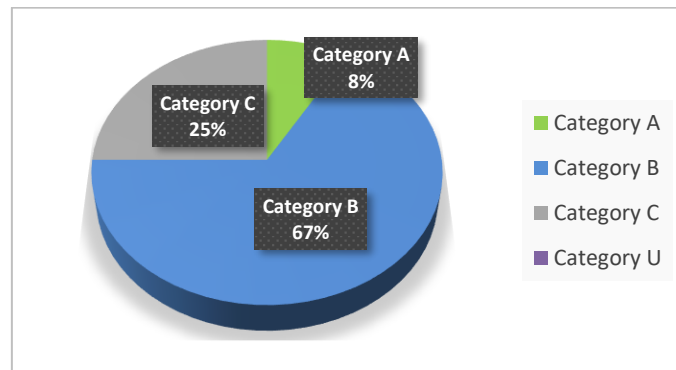


Figure 1, Tree Categorisation Distribution

- 4.2.3 Of the 12no. arboricultural features assessed, 1no. individual trees (T5) was regarded as offering a high arboricultural quality (category A).
- 4.2.4 T5 was a mature sycamore, situated offsite, within third-party land, and which exhibited a good structural and physiological condition at the time of assessment. The tree was apparently single-stemmed and stood between two garage units which appeared to be in contact with either side of the stem. The stem bifurcated at c.3m from which a balanced crown, free from obvious defects, had formed.
- 4.2.5 It should be noted that *Table 1* of BS5837:2012 only gives recommendations in relation to remaining years. A tree may be considered to have a longer remaining life, however, still be of a lower category given its maturity, condition, or overall impact to the application site.
- 4.2.6 In line with BS5837:2012, the category A and B trees should be considered as providing a substantial contribution to a site. Therefore, Category A and B trees should be retained and incorporated into the Proposed Scheme where possible and feasible.
- 4.2.7 Generally, category C and U trees are of low quality or are young specimens, which can be readily replaced, therefore, should not be considered a constraint to Proposed Scheme. However, it is understood that, wherever possible, trees will be retained for the benefits that they currently provide as well as helping to ensure a continuity of tree cover and providing a mature landscape to the Proposed Scheme.
- 4.2.8 The location of each tree and their associated constraints including canopy spread and root protection areas with and without the Proposed Scheme are illustrated on plan A001 at Appendix 4.

5. Impact Assessment

5.1 Relationship between the Site layout and trees

- 5.1.1 To implement the Proposed Scheme, there will be an overall loss of 1no. category C individual tree (T6), circa. 5no. trees from G1 and 1no. tree from G5, each regarded collectively as offering a moderate arboricultural quality (category B). The direct impacts have been summarised in *Table 2 below*.
- 5.1.2 The removal of these trees will be necessary to facilitate the positioning of the proposed Pod (G5) and the proposed formal stone paved walkway network (G1 and T6). The loss of a small number of trees will not be noticeable from beyond the curtilage of the site and will not detract from the amenity currently provided to the wider, local area. Furthermore, the removal of such a relatively low number of trees will not have a detrimental impact of the arboricultural resource of the Site.



Table 2 Trees to be removed for proposed works.

Reason for removal	Proposed works or reason	Tree retention category				Total
		A	B	C	U	
Proposed Scheme	Fell to facilitate development.	-	-	1 tree	-	1
Partial Removal	To facilitate the placement of 2no. Pod and proposed walkway/path network		6 trees			6
Total		0	6	1	0	7

- 5.1.3 The Glamping Pods and proposed walkway/path network have been located to minimise tree loss, as far as practicable, and to remain in keeping with the current site setting. These paths will be surfaced with ornate and accessible stone paving suitable for people with disabilities. It is assumed that the pods will be delivered to the Site in kit form and assembled on site by hand.
- 5.1.4 It is assumed that the foundations will comprise screw piles with the Pods effectively stood marginally off the ground, to minimise the need for excavation and potential for root severance, as well as post-development soil compaction and any restriction in moisture or gaseous exchange. As an alternative means of providing a suitable, tree-friendly, base footing to the Pods, it's recommended that an above-ground, "no-dig" cellular-confinement system suitably engineered to support a low load-bearing construction of this type.
- 5.1.5 The loss of tree cover, albeit limited and confined to the internal areas of the site, away from the principal boundaries, can be compensated through the implementation of new structured tree planting as part of an appropriately considered landscape proposal. There are opportunities within the Proposed Scheme to exploit the areas between the Pods to plant new trees and shrub masses.
- 5.1.6 Section 5.1.1 of BS5837:2012 recognises that the competing needs of development mean that trees are only one factor requiring consideration. It also states that misplaced tree retention can be detrimental on a site where it will cause excessive pressure on those trees being retained and could necessitate their removal in the future.
- 5.1.7 All trees, which are directly or indirectly impacted upon by the Proposed Scheme, are illustrated on plan number A002, at Appendix 4.

5.2 Below Ground Constraints

Root protection area

- 5.2.1 The below ground constraints are generally summarised as the root protection areas (RPA). The RPA is an area equivalent to a circle with a radius 12 times the diameter of the trees measured at 1.5 metres for single stemmed trees. For trees with more than one stem, one of two calculation methods should be used, dependent on the number of stems. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided from Annex D of BS5837:2012.



- 5.2.2 The RPA is an area in which no ground works should be undertaken without due care in relation to the retained tree(s) and this is to avoid soil compaction, changes in levels or soil contamination which could alter the trees condition and/or stability. The shape of the RPA and its exact location will depend upon arboricultural considerations and ground conditions.
- 5.2.3 The RPA for the trees has been calculated as prescribed by BS5837:2012 and are shown as pink dashed circles on the Tree Constraints Plan at Appendix 4. These plans illustrate the relationship between the RPAs associated with the trees and the Proposed Scheme.
- 5.2.4 In addition to the illustration of RPAs on the plans at Appendix 4, the numerical RPA values are provided within the Tree Schedule at Appendix 3. Within the schedule both RPA radius in metres from the main stem and total area for the RPA as square metres.

New RPA incursion

- 5.2.5 The default position should be that structures are located outside the RPAs of trees to be retained. However, where there is an overriding justification for construction within the RPA, technical solutions might be available to prevent damage to the tree(s), recommended within BS 5837:2012, paragraph 5.3.1.
- 5.2.6 To construct the proposed Pods, there will be new incursions within the RPA of features G1, G2, G3, G4, G5, G6 and G7 along with trees T1 and T2. The incursions are predominantly the result of the placement of the Pods or the proposed walkway/path network and not the result of excavations or raising of the ground within the RPA.
- 5.2.7 Given the low-load bearing nature of the Pods and the assumption that these are to be erected on top of screw piles; with the Pods to be stood marginally off the ground, the impacts resulting from these incursions would be considered minimal and would not adversely impact the existing physiological conditions of the trees. It is recommended that any construction materials to be moved around the Site avoid the RPAs of retained trees. A draft Tree Protection Plan has been provided at Appendix 4.

Below-ground Infrastructure

- 5.2.8 Due to the details provided for this application, there is insufficient information relating to below ground infrastructure available at present.. However, there is sufficient space outside of the RPAs for services to be located. If services do enter RPAs the use of hand digging as detailed in the National Joint Utilities Group publication '*Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees*' (NJUG 10, Volume 4, 2007) will be undertaken to minimise the impact on the tree roots.

5.3 Above Ground Constraints

Canopy protection zone

- 5.3.1 The above ground constraints predominantly refer to the impact of the canopy of any retained tree on the Site either by size and form, shadowing, and nuisance factors. As a result, it is sometimes required that a canopy protection zone is established to ensure it is not harmed during construction.
- 5.3.2 Where the current and/or ultimate height of a Category A, B or C tree will cause an obstruction to the Proposed Scheme, this must be considered as a constraint. This is usually considered in terms of issues relating to shade and light.
- 5.3.3 An Amenity Clearance Zone (ACZ) is used to consider the impact of the proximity of retained



trees to structures. The ACZ is defined as an area surrounding the tree that enables a satisfactory relationship to exist between the property and the tree, and as such is equal to two-thirds of the tree's expected mature height. The ACZ is a combination of factors such as:

- Shading (of buildings and open space)
- Direct damage to structures
- Future pressure for removal
- Seasonal nuisance (e.g., leaf fall blocking gutters, fruit fall creating slippery patches and honey dew dripping on vehicles and surfaces)

5.3.4 Consideration is also given to species characteristics such as:

- Deciduous or evergreen.
- Density of foliage.

5.3.5 Although not part of BS5837, the ACZ also reflects a more intangible factor of how comfortable the inhabitant of the property is likely to feel by the proximity of the tree to the house. It serves to protect retained trees from pressure to be felled or undergo surgery after occupation of the property.

5.3.6 The tree canopies are marked on the attached TCP as a continuous line around each individual tree.

Proposed pruning works.

5.3.7 To implement the Proposed Scheme, there is likely to be a requirement to prune all the trees along the north-eastern boundary (G2, G3, G4, T1 and T2). Pruning will be limited to crown-lifting only to provide adequate crown clearances to facilitate both the final positions of the proposed Pods and to reduce the likelihood of injurious contact between any of the retained trees and the structures in future.

Future growth

5.3.8 The future growth of the trees will have a minor impact on the proposed scheme layout. Boundary trees will require minor future pruning. This can be addressed with minor pruning of the lateral branches, which encroach towards the proposed built structures and parking.

6. Conclusions

6.1.1 This survey and impact assessment include records of 5no. individual trees and 7no. groups of trees. This included 1no. category A, 8no. category B and 3no. category C arboricultural features. Tree T3 has been omitted from this assessment.

6.1.2 It has been considered desirable wherever possible that trees and groups of trees should be retained, although care has been exercised over misplaced tree preservation. In terms of the current site layout plan, there is conflict with the trees that cannot be avoided and therefore mitigation proposals are considered.

6.1.3 To implement the design proposal there will be an overall loss of 1no. category C individual tree along with the partial removal of 2no. category B groups (consisting of 6no. trees to be lost in total from these groups). The single category A tree recorded shall be retained and incorporated into the Proposed Scheme along with the remainder of the existing tree cover.

6.1.4 The proposed removals would have minimal impact on both the arboricultural resource and amenity value of the surrounding area. The loss of these trees is considered acceptable in the



context of the Proposed Scheme and with the recommended mitigation implemented.

- 6.1.5 To construct the Proposed Scheme; Pods and walkway/path network, there will be new, low load-bearing incursions into the RPA of gno. trees to be retained. Recommendations have been made in relation to construction techniques to minimise root disturbance resulting from these new incursions within section 5.1.4.

7. Recommendations

- 7.1.1 The successful retention of those trees that will remain on the Site will be dependent upon the quality and maintenance of any protection system that is put in place. An Arboricultural Method Statement should be provided to detail how the necessary tree protection will be implemented.
- 7.1.2 An indicative draft Tree Protection Plan (A003 – Appendix 4) has been provided, however, this is subject to alteration following a final decision notice and a detailed method statement (AMS) should be provided as part of a robust planning condition.

8. References

British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendation'

British Standard 3998:2010 'Tree work – Recommendations'

British Standard 8545:2014 Trees: from nursery to independence in the landscape – Recommendations

National Planning Policy Framework (NPPF) 2021

The Forestry Act 1967

The Town and Country Planning Act 1990

The Town and Country Planning (Tree Preservation) (England) Regulations 2012

9. Caveats and Limitations

- 9.1.1 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.
- 9.1.2 This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering, or soil.
- 9.1.3 This is not an arboricultural health and safety survey, a more detailed survey of internal decay detection etc can be supplied but would be subject to a further fee.
- 9.1.4 This is a report which should be to accompany a planning application and provides no detail specifically in relation to the health and safety of the trees.
- 9.1.5 All tree inspections were undertaken from ground level and no climbing inspections were undertaken.
- 9.1.6 Where trees have been captured beyond the Site boundary, all dimensions of trees and their associated parts are based on estimation unless otherwise stated. If trees are located within the Site boundary, measurements will not be estimated unless otherwise stated within the comments of the Tree Schedule.
- 9.1.7 Trees are growing dynamic structures. Whilst reasonable effort has been made to identify

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defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. No tree is ever safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.

- 9.1.8 Trees are living organisms whose health, condition and structure can change quickly and without warning. Therefore, the contents of this report are valid for a period of one year from the date of this survey.
- 9.1.9 On undertaking the recommended works, the arborist/tree surgeon must without delay report any defects that become apparent while climbing or working on the tree/s in question. Those defects must be reported immediately to the relevant project manager, landowner and/or the author of this report to enable the appropriate remedial action.
- 9.1.10 This is an arboricultural report and therefore does not rely on ecological or archaeological data. If either is commented upon within the report further professional advice should be sought.

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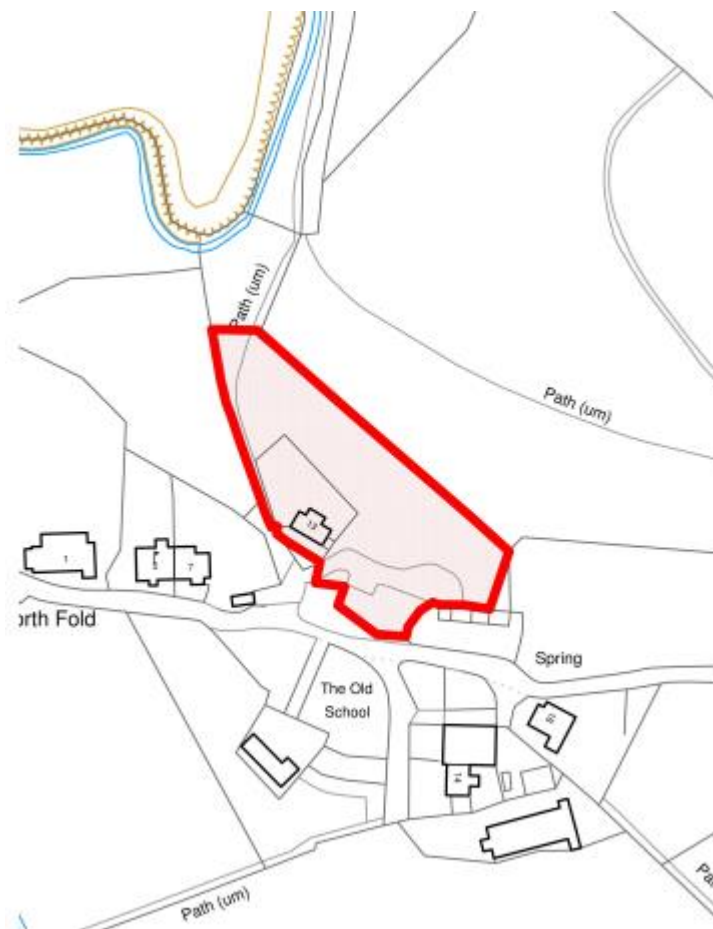
Appendix 1: Red Line Boundary Plan

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Appendix 2:

Survey and Assessment Methodology

- i. The trees on the Site were originally surveyed without reference to site layout as detailed in paragraph 4.4.1.1 of BS5837:2012. However, for the purposes of the Arboricultural Impact Assessment the Proposed Scheme for the Site has been considered.
- ii. The position of each tree was plotted with reference to the supplied ordinance survey plan. Small trees with a stem diameter less than 75mm were generally not surveyed as they would either be easily replaced or relocated.
- iii. Each individual tree has been given a tree identification number, the groups and hedges clearly defined for the purpose of this report. Metal tags have not been used for this survey as identification on-site does not require this. The tree numbers associated with each tree are cross referenced within the schedule and plans at Appendix 3 and 4 respectively.
- iv. The tree species have been recorded with both common and botanical names.
- v. All tree heights have been assessed using a clinometer and were indicated in groups the height of the tallest tree was measured unless otherwise stated. Tree heights are given in metres.
- vi. All stem diameters were measured at 1.5 metres above ground level and are given in millimetre units (unless otherwise stated where "gl" is an abbreviation for ground level where diameter was measured just above root flare, "est" is an estimate and "av" is an average).
- vii. The canopy spread is recorded in either the four cardinal points or is given as an average diameter for the crown, especially in groups or where the crown is evenly weighted. Canopy spreads are measured in metres.
- viii. The height of the ground clearance is given in metres and is an estimate of the height of the first branch above ground level.
- ix. In absence of detailed information on the age the following classification has been used:

Young	Young trees aged less than 1/3 life expectancy.
Semi-Mature	Established specimen approaching 1/3 life expectancy.
Early-Mature	Middle age trees 1/3 – 2/3 life expectancy.
Mature	Mature trees over 2/3 life expectancy.
Over-Mature	Over-mature – declining or moribund trees of low vigour; and
Veteran	Veteran trees – specimens exhibiting features of biological, cultural, or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.
- x. Age class is indicative and will vary between species.
- xi. The structural condition of the trees has been assessed and is summarised as:

Good	Few minor defects of little overall significance.
Fair	A significant defect or several small defects.
Poor	Major defect present or many small defects.

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- xii. The physiological condition has been recorded to provide an indication of the tree's general health and vitality. The trees have been described thus:

Good	Generally in good health typical of the species.
Fair	Reasonable health with few defects.
Poor	Trees that exhibit significant defects which are irremediable or moribund tree.
Dead	Tree has died.

- xiii. Each tree was individually assessed and comments, where appropriate, were recorded for the condition of each tree's roots, main stem, and crown.
- xiv. General comments have also been made where appropriate, with recommendations when relatively immediate works are given.
- xv. Estimated remaining contribution has been categorised as: less than 10 years, 10-20 years, 20-40 years or over 40 years, based upon an assessment of the tree's potential safe useful life expectancy. The remaining contribution in years has not always been directly followed in relation to the retention categories of the trees as trees may have a long remaining life however be of little significance in terms of development.



Glossary of Terms

Term	Acronym	Definition
Arboricultural Clerk of Works	ACoW	The ACoW is a competent arboriculturist that is employed to oversee all construction matters relating to trees. Typical site monitoring tasks include but not limited to: checking tree protection fencing is installed and positioned correctly, oversee excavation works that are within the RPA of trees and deliver toolbox talks.
Arboricultural Impact Assessment	AIA	An element of the British Standard 5837:2012 '<i>Trees in Relation to Design, Demolition and Construction - Recommendation</i>'. An AIA is a report intended to inform the Local Planning Authority of the impacts of a Proposed Scheme to the surrounding trees. The report acknowledges the direct and indirect impacts that the development will (or may, in relation to outline applications) have on the trees and conversely, the trees on the development. The aim is to establish if the trees can co-exist in harmony with the development and continue to contribute to the site for many years.
Arboricultural Method Statement	AMS	Part of British Standard 5837:2012 ' <i>Trees in Relation to Design, Demolition and Construction - Recommendation</i> ' the AMS specifies what works are required in relation to tree protection and retention and details any alternative construction methods necessary to protect and avoid foreseeable damage to retained trees.
Construction Exclusion Zone	CEZ	The CEZ is a designated area decided by the project arboriculturist. It is where pedestrians, storage of materials and vehicular movement is prohibited during the construction period. This is identified on a tree protection plan, where lines are annotated onto the site plan, indicating where fencing must be installed onsite to form an exclusion zone.
RPA	Root Protection Area	The RPA provides the minimum amount of space deemed sufficient to sustain a trees viability. This area is typically calculated by measuring the diameter of a trees stem at 1.5m from ground level in millimetres and multiplied by 12. This equals the radius in metres and is used to create a circular radius centred off the stem. There are external factors that means there are sometimes variations to this method.

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Term	Acronym	Definition
TCP	Tree Constraints Plan	The initial stage of a BS5837:2012 tree survey. A site assessment of all trees on or within influencing distance of the site, trees are denoted on a plan overlaid with the existing context of the site, often in the form of a topographical survey or OS map. Trees are superimposed onto the plan to show their reference number (e.g., T1), canopy spread, retention categorisation and RPA,
TRRP	Tree Retention and Removals Plan	A plan denoting which trees will be lost as a result of the development and the trees that can viably be retained within the proposed setting. Trees are often denoted in green and red, for retention and removal.
TPP	Tree Protection Plan	A plan showing the retained trees will be protected through construction of the Proposed Scheme. Various annotations are added to demonstrate what mitigation and protection is required; pre, during and post development.
ACZ	Amenity Clearance Zone	An ACZ is used to consider the impact of the proximity of retained trees to structures. The ACZ is defined as an area surrounding the tree that enables a satisfactory relationship to exist between the property and the tree, and as such is equal to two-thirds of the tree's expected mature height. The ACZ is a combination of factors such as shading, future pressure for removal and seasonal nuisance.



Impact Assessment Methodology

Level of Effect		Criteria
Significant	<i>Substantial</i>	Effects assigned this level of significance represent key factors in the decision-making process. These effects are generally, but not exclusively, associated with sites and features of national or regional importance. The effects may result in a change at a county scale site or feature may also enter this category.
	<i>Major</i>	These effects are likely to be important considerations at a district scale and may become key factors in the decision-making process.
	<i>Moderate</i>	These effects, while important at a local scale, are not anticipated to be key decision-making issues.
Not Significant	<i>Minor</i>	These effects may be raised as local issues but are unlikely to be of importance in the decision-making process.
	<i>Negligible or No Effect</i>	These effects are imperceptible, or within normal bounds of variation, or in the margins of forecasting errors. Such effects should not be considered by the decision-maker.

Arboricultural Impact Assessment

VERSION: V1 DATE: December 2021

REF NO: 211203 1340 AIA V1



Environmental Effects	Duration	Criteria
Permanent	<i>Permanent</i>	A change that is irreversible (e.g. permanent land take) or will last for the foreseeable throughout the operation, the operation of the Proposed Scheme and are more generally associated with the completed development.
Temporary	<i>Long</i>	Assessment of the likely significant effects that last for six or more years.
	<i>Medium</i>	Assessment of the likely significant effects that last between one and five years.
	<i>Short</i>	Assessment of the likely significant effects that last between one and five years.



Appendix 3: Schedules

BS5837:2012 Cascade Chart

Complete Tree Schedule

Category and Definition	Criteria (including subcategories where appropriate)			ID Colour on Plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning); • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline; and/or • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees suppressing adjacent trees of better quality. <i>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			Dark Red (127-000-000) 
Trees to be considered for retention (see Note)				
	1 - Mainly arboricultural qualities	2 - Mainly landscape qualities	3 - Mainly cultural values, including conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	Light Green (000-255-000) 
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees <i>with</i> material conservation or other cultural value.	Mid Blue (000-000-255) 
Category C Trees of low quality currently in adequate condition with at least 10 years life expectancy, or young trees with a stem diameter below 150mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with <i>no</i> material conservation or other cultural value.	Grey (091-091-091) 

BS5837:2012 Tree Schedule



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m²)	RPA Radius (m)
						N	E	S	W										
INDIVIDUAL TREES																			
T1	No Tag.	Pedunculate oak	<i>Quercus robur</i>	10	395	6	6	5	6	3	S/Mat	Good	Good	Semi mature specimen located on the eastern boundary of the site. Single stem. Structural canopy divides from c.3m. Storm damage associated with the upper canopy, with central stem torn out and suspended from c.5m. Component of the wider boundary group. Still young and capable of recovering with management. Moderate future potential.	Remove hung up suspended limb.	>40 years	B1, 2	72	4.8
T2	No Tag.	Common alder	<i>Alnus glutinosa</i>	11	310	4	4	4	4	2	S/Mat	Good	Good	Semi mature specimen located on the eastern boundary of the site. Single stem. Epicormic growth at base. Central stem maintained for the majority of the height. Structure and canopy typical of the species.	Remove epicormic growth.	20 to 40 years	B1, 2	41	3.6
T3	Tree number not in use.																		
T4	No Tag.	Silver birch	<i>Betula pendula</i>	13	340	5	5	5	5	1	E/Mat	Good	Good	Early mature specimen located on the western boundary of the site, within the adjacent residential rear garden. Single stem bifurcates at c.4m. Prominent specimen within the garden setting. Good future potential.	No works required at the time of assessment.	20 to 40 years	B1, 2	55	4.2
T5	No Tag.	Sycamore	<i>Acer pseudoplatanus</i>	17	850	9	9	9	9	6	Mat	Good	Good	Offsite specimen with limited access, measurements estimated. Mature specimen located on the southern boundary of the site. Single stem. Located between two garage units which appear to be in contact with either side of the stem. Stem bifurcates at c.3m. Good radial canopy. Of good vigour. Adds height to the boundary screen.	No works required at the time of assessment.	>40 years	A1, 2	327	10.2
T6	No Tag.	Pedunculate oak	<i>Quercus robur</i>	11	435	8	8	2	5	2	E/Mat	Fair	Fair	Early mature specimen located in the southwest corner of the site. Single stem. Canopy significantly biased North, southern portion of the canopy has died back as a result of fires adjacent. Adds to the wider boundary group.	No works required at the time of assessment.	20 to 40 years	C1, 2	82	5.1

BS5837:2012 Tree Schedule

Client Name: Rochdale Borough Council
 Site: Hollingworth Lake
 Ref No: 211125 1340 TS V1 Camping Pods

Consultant: E. Preston
 Survey Date: November 2021



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m²)	RPA Radius (m)
						N	E	S	W										
TREE GROUPS																			
G1	No Tag.	Horse chestnut, Common alder, Silver birch, Common hawthorn, English holly, Norway spruce, Pedunculate oak, Rowan, Swedish whitebeam, Small-leaved lime, Smooth-leaved elm	<i>Aesculus hippocastanum</i> , <i>Alnus glutinosa</i> , <i>Betula pendula</i> , <i>Crataegus monogyna</i> , <i>Ilex aquifolium</i> , <i>Picea abies</i> , <i>Quercus robur</i> , <i>Sorbus aucuparia</i> , <i>Sorbus intermedia</i> , <i>Tilia cordata</i> , <i>Ulmus carpinifolia</i>	3 - 12	110 - 370	4	4	4	4	15	S/Mat	Fair	Fair	Situated along the western boundary of the Site. Group straddles both sides of the barbed wire fence and the western boundary is delineated by a stone wall. Debris has been piled at the base of the trees at the eastern extent of the group, may explain decline of some trees. Trees spaced approximately 1m apart. Hawthorn understory. Trees of early mature in age. Horse chestnut showing signs of bacterial bleeding canker. Some trees along the front of the group have significant bark wounds to lower stems. Central trees exhibiting signs of crown dieback, likely due to shading. Individually trees of limited arboricultural quality, however has collective landscape value.	No works required at the time of assessment.	20 to 40 years	B2	64	4.5
G2	No Tag.	Common alder, English holly, Norway spruce	<i>Alnus glutinosa</i> , <i>Ilex aquifolium</i> , <i>Picea abies</i>	6 - 13	140 - 345	4	4	4	4	0	S/Mat	Good	Good	Situated on the sites eastern boundary, 3 trees growing close to the stone wall delineating the site boundary. Holly of small proportions. Group shares a cohesive canopy. Crowns show good vigour. Moderate future potential.	No works required at the time of assessment.	20 to 40 years	B1, 2	55	4.2
G3	No Tag.	Horse chestnut, English holly, Rowan	<i>Aesculus hippocastanum</i> , <i>Ilex aquifolium</i> , <i>Sorbus aucuparia</i>	4 - 6	110 - 230	3	3	3	3	0	S/Mat	Fair	Fair	Situated along the sites eastern boundary. Abutting stone wall which delineates the boundary. Forms a cohesive canopy. Trees of little value at present given small proportions. Rowan exhibits multi stemmed form. Limited arboricultural value.	No works required at the time of assessment.	10 to 20 years	C1, 2	22.902	2.7
G4	No Tag.	Sycamore, Silver birch, English holly, Pedunculate oak, Small-leaved lime	<i>Acer pseudoplatanus</i> , <i>Betula pendula</i> , <i>Ilex aquifolium</i> , <i>Quercus robur</i> , <i>Tilia cordata</i>	6 - 10	200 - 500	6	6	6	6	1	E/Mat	Good	Fair	Situated along the sites eastern boundary, 9 trees with some small holly understory. Predominantly lime. Lime often of multi stemmed form as they could have been coppiced in the past. Some have included bark unions. Pruning wounds and branch stubs present throughout. Group shares cohesive canopy. Sycamore has tar spots on the leaves. Silver birch is heavily suppressed laterally by adjacent trees. Moderate landscape and arboricultural value.	No works required at the time of assessment.	20 to 40 years	B1, 2	113.1	6
G5	No Tag.	English holly, Wild cherry, Holm oak, Pedunculate oak, Rowan, Swedish whitebeam	<i>Ilex aquifolium</i> , <i>Prunus avium</i> , <i>Quercus ilex</i> , <i>Quercus robur</i> , <i>Sorbus aucuparia</i> , <i>Sorbus intermedia</i>	4 - 14	105 - 440	5	5	5	5	1	S/Mat	Good	Good	Situated along the sites eastern boundary. Dense group of trees with dense undergrowth at base preventing access. Holly understory has spread throughout group which also inhibited inspection. Smaller trees have been suppressed by adjacent specimens and are dying back. Dieback of the westernmost crowns of the group noted. Group forms a cohesive canopy. Large oak specimen delineates the westernmost edge of the group. Provides excellent screening value. Moderate future potential.	No works required at the time of assessment.	20 to 40 years	B1, 2	91.609	5.4
G6	No Tag.	Common alder, English holly, Common Laburnum, Scots pine, Pear species, Pedunculate oak, Elder	<i>Alnus glutinosa</i> , <i>Ilex aquifolium</i> , <i>Laburnum anagyroides</i> , <i>Pinus sylvestris</i> , <i>Pyrus sp.</i> , <i>Quercus robur</i> , <i>Sambucus nigra</i>	3 - 17	230 - 480	6	6	6	6	0	E/Mat	Good	Good	Situated along the sites south Western boundary. Small stone wall delineates western edge of the group abutting the Road. Dense group of uniform planting with trees spaced c.1m apart. Predominantly Scots pine. Dense elder and Holly understory prevented access to base and obscured inspection. Alder, beech and oak stand at the peripheries of the group surrounding the pine. Moderate landscape and arboricultural value. Good screening value. Moderate future potential.	No works required at the time of assessment.	20 to 40 years	B1, 2	102.07	5.7
G7	No Tag.	English holly	<i>Ilex aquifolium</i>	5 - 6	50 - 80	4	4	4	4	0	S/Mat	Good	Fair	Early mature group located on the western boundary of the site. Dense cohesive group forms a significant boundary screen. Of limited arboricultural merit.	No works required at the time of assessment.	20 to 40 years	C2	2.5447	0.9

Arboricultural Impact Assessment

VERSION: V1 DATE: December 2021

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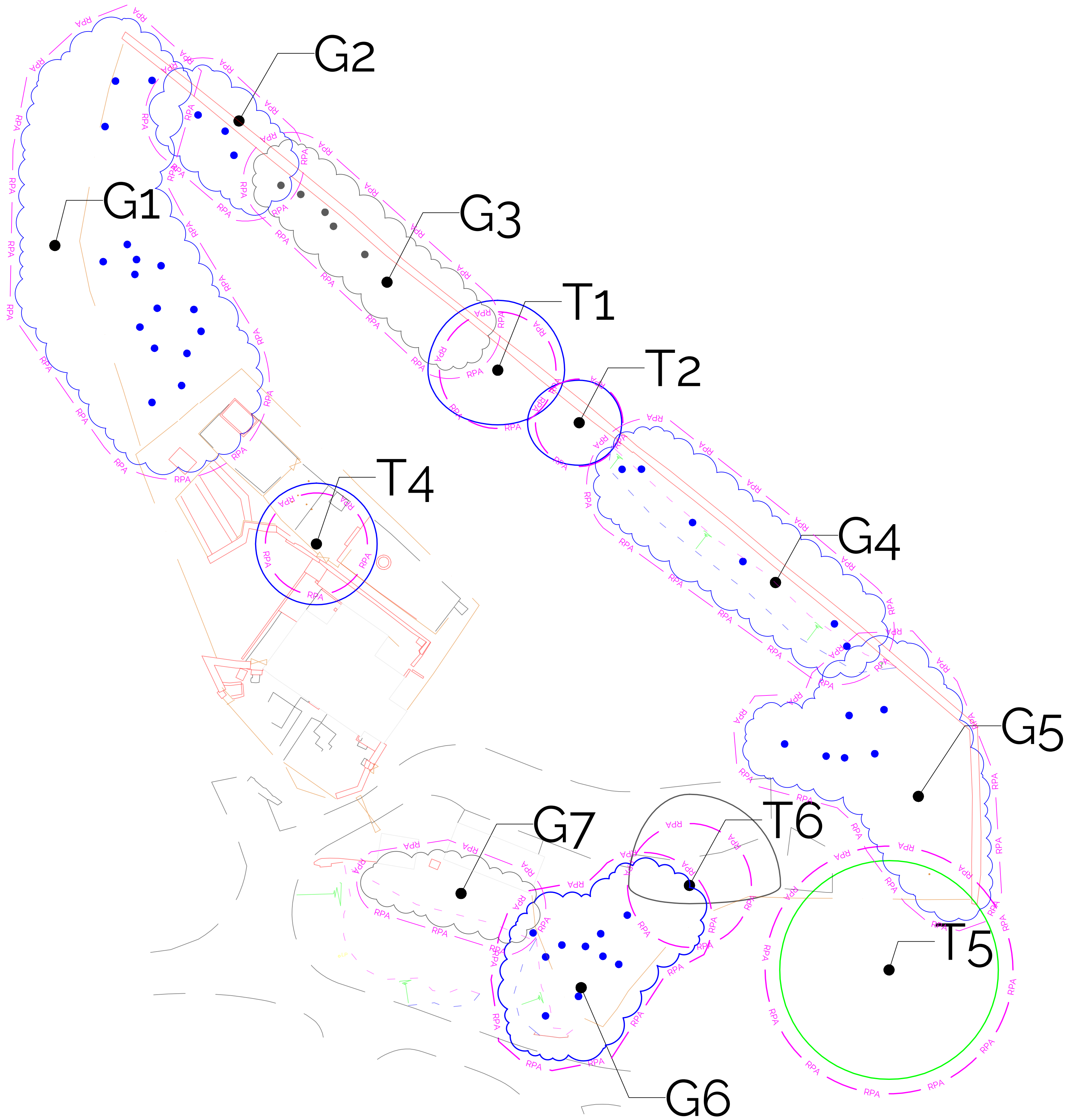


Appendix 4: Plans

Tree Constraints Plan (A001)

Tree Retention and Removal Plan (A002)

Draft Tree Protection Plan (A003)



A Category Trees /
High Retention Value

B Category Trees /
Moderate Retention Value

C Category Trees /
Low Retention Value

U Category Trees /
Remove

Canopy Spread (m)
Tree Stem
Root Protection
Area (RPA)

This TCP is created as a design tool and does not make an assessment of the impacts or subsequent effects of the Proposed Development to trees. Therefore, the TCP must not be submitted solely to inform the planning application. An Arboricultural Impact Assessment or similar report will be required to inform the planning application which the TCP may form part of.

Date: November 2021

Client: Rochdale Borough Council

Project: Glamping Pods, Hollingworth Lake

Title: Tree Constraints Plan

Map file reference	DWG No
211013 1340 TCP P1 V1	A001

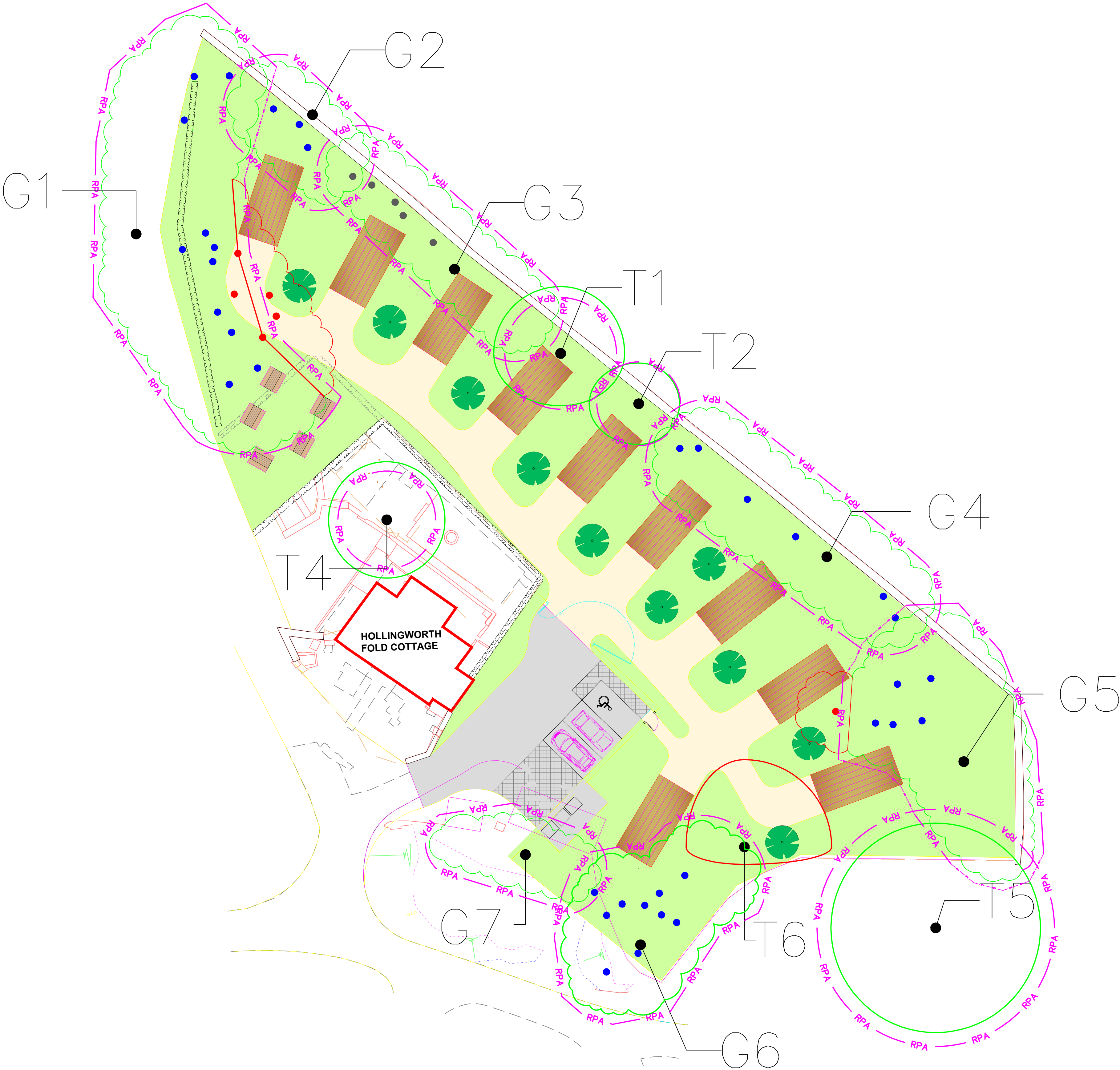
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Date: December 2021

Client: Rochdale Borough Council

Project: Hollingworth Lake Camp Site

Title: Tree Retention and Removals Plan

Map file reference	DWG No
211207 1340 TRRP V1	A002

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Precautionary Zone.

- Hand tools only, excavation limited to the removal of the surface layer (grass) only.
- No materials or soils are to be stored within the precautionary zone;
- Oil, bitumen, cement or other material that is potentially injurious to trees will not be stacked within 10m of a tree stem. No concrete mixing will be done within 10m of a tree. Allowance will be made for the slope of ground to prevent materials running towards the tree;
- Wide or tall loads etc. should not come into contact with retained trees.
- No fires will be lit where flames are anticipated to extend to within 5m of tree foliage, branches or trunk, taking into consideration wind direction and size of fire;
- If unexpected large roots (>25mm diameter) are encountered during excavation for construction works the arboricultural consultant should be contacted immediately. No exposed roots will be left uncovered. They will be covered over as soon as possible to minimise the risk of drying out and dying.

TREE PROTECTING FENCING SPECIFICATION

Given the low impact nature of the Proposed Scheme and the low-load bearing and minimal construction detail of the proposed Pods, a low-intensity fencing can be employed.

The Protective Fencing will consist of orange mesh-panel fencing, staked using wooden posts or metal rebar. Tree Protecting Fencing exclusion signs will be attached at regular intervals. The area behind the fencing will form a CEZ.



A Category Trees / High Retention Value

B Category Trees / Moderate Retention Value

C Category Trees / Low Retention Value

U Category Trees / Remove

Canopy Spread (m)
Tree Stem
Root Protection Area (RPA)

Tree Protection Fencing

Precautionary Zone – Hand Tools Only

Date: December 2021

Client: Rochdale Borough Council

Project: Hollingworth Lake Camp Site

Title: Tree Protection Plan (Draft)

Map file reference	DWG No
211207 1340 TPP V1	A003

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