



WE KNOW SERVICES

ARBORICULTURAL IMPACT ASSESSMENT

Site

Millbrook Community Primary School, Kirkby

Client

Knowsley Metropolitan Borough Council

Report Date

August 2022

Version

First Issue

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An image showing T3 (centre) and T2 (far right)

Quality Assurance

The information which the author has prepared and provided is true and has been prepared and provided in accordance with the Arboricultural Association's Code of Ethics and Conduct. We confirm that the opinions expressed within this report are true and represents the author's professional opinions.

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1 Introduction

We Know Services were instructed by Knowsley Metropolitan Borough Council to undertake an BS5837:2012 arboricultural survey of the tree features within and adjacent to the red line boundary at Millbrook Community Primary School, Kirkby Row, Kirkby L32 0TG.

This report details the arboricultural implications of developing the site, including a survey of the trees on and near the development which may impact the proposal.

- A. A survey of the trees on and near the development which may impact the proposal.
- B. A tree schedule.
- C. Advice on the removal, retention, and management of trees.
- D. Assessment of the potential effects of the proposal on retained trees and vice versa.
- E. Assessment of the requirement for tree protection for the duration of the works
- F. Mitigation proposal for any loss.

The survey was undertaken on 27th July 2022 by means of visual inspection from ground level by an experienced and qualified arboriculturalist. The inspection can be restricted in cases where trees were Ivy clad or surrounded by vegetation.

Under *BS5837: 2012 Trees in Relation to Construction - Recommendations*, the assessment of trees is made objectively. The tree categorisation method identifies the quality and value of the existing tree stock, allowing informed decisions to be made concerning development design layout.

The following document was made available by the client:

- Drawing - E052_KH_Modular-Proposed Site Plan

The supplied drawing did not include tree positions plotted. All trees have been added to the drawing indicatively. Any dimensions regarding tree positions and protective fencing must be checked on site.

The survey was carried out noting the conditions of the trees at the time of inspection. As trees are part of the natural environment, conditions can naturally change; therefore, the contents of this report are valid for one year only. After this period, re-inspection may be required.

Until planning permission is obtained, no tree work should be undertaken on site following the issue of this document. Once planning permission is obtained, only the works recommended within this document should be undertaken unless permission is obtained from the local planning authority.

2 Site Information

2.1 Site Description

The site consisted of a primary school and all the relevant facilities. To the north and the west of the site are residential properties, to the east of the site is Millbrook Millennium Green and to the south of the site is Kirkby Row.

2.2 Proposals Description

The supplied proposals indicate that a modular building is to be installed adjacent to the school reception (Appendix 3.0).

2.3 Statutory Designations

A check for tree preservation orders and conservation areas was undertaken on 01/08/22 using Knowsley Councils online My Neighbourhood Map, the results showed that there are no preservation orders on site and the site is not within a conservation area.

3 Survey Methodology

The trees were surveyed (prefixed T, or G for group) and recorded in the tree schedule in Appendix 1.0. Where groups are recorded, average height and diameter at breast height (DBH) of the trees in the group are reported. Where access to the base of any trees was limited, stem size was estimated.

All the trees were assessed using: a grading A to C (retention) and U (removal); condition and age class as defined in Appendix 2.0.

Where appropriate, canopy spread for each tree was recorded at four cardinal points to reproduce an accurate representation of the crown shape of the tree on the tree plan in Appendix 3.0.

The survey included all trees within the proposal area and trees near to the proposal.

4 Survey Results

The survey identified four tree features on site consisting of four individual trees. Of these, two tree features were classed as category B and the remaining two tree features were classed as category C.

All trees surveyed on site were found to be in good condition requiring no remedial works.

5 Impact Assessment

Table 5.1: Impact Table

Tree No.	RPA Radius	Distance to Proposed Development A (m)	RPA Incursion (m ²)	RPA Incursion (%)	Can the tree/s be successfully retained?
T1	1.20	12.1	0	0%	Yes
T2	5.16	2.1	14.10	16.9%	No
T3	7.32	2.2	25.00	14.8%	No
T4	1.80	14	0.00	0.0%	Yes

Table 5.2 Impact Assessment

	Trees to be retained		Trees to be removed	
	With no impact	With detailed construction	Due to condition	Due to development
Tree No.	T1, T4			T2, T3

Due to the proposals, a total of two individual trees are proposed for removal.

T2 and T3

The supplied plans (Appendix 3.0) indicate that a modular building is to be installed on the site adjacent to the existing locations of T2 and T3. Typically Pile and beam foundations would be recommended to ensure the trees retention, however considering the impact to the root protection areas (RPAs) and the proximity of the proposals to the trees, it is recommended that T2 and T3 are removed to accommodate the proposals. To mitigate the loss of these trees, it is recommended that they are replaced on a 2:1 basis. Please refer to *Section 6.1* for more details.

Precautionary measures including working in proximity to trees during construction are detailed in the accompanying method statement (Ref: 22/0038/AMS).

6 **Mitigation Proposals**

6.1 **Replacement Tree Planting**

Due to the loss of the trees identified in the Impact Table, it is recommended that replacement trees are planted as part of the proposed landscaping scheme. The extent of mitigation planting required will need to be confirmed in agreement with the Local Planning Authority once the development proposal is finalised.

Requirements usually involve replacement of trees on a two for one basis. This is based on tree sizes of 12-14cm girth, however for replacements that are significantly larger (20-25cm girth), it is considered that an increased size will mitigate for the tree loss in the form of replacements on a one for one basis.

This will have several benefits for the development and the character of the area. These are:

- Give a greater diversity of age class on the site, increasing sustainability.
- Give a greater diversity of species and therefore wildlife habitat.
- As the trees proposed for removal are to the rear of the site some of the replacement planting will be situated to the front of the development. Therefore, the tree cover and amenity value in the locality will increase.

A list of recommended tree species proposed are listed in *Table 5.3: Replacement Tree Specifications*.

Table 5.3: Recommendations for Replacement Tree Specification

Tree Species	Tree Size
Field Maple - <i>Acer campestre</i>	20-25 cm girth
Silver Birch - <i>Betula pendula</i>	20-25 cm girth
Scots Pine - <i>Pinus sylvestris</i>	20-25 cm girth
English Oak - <i>Quercus robur</i>	20-25 cm girth
Rowan - <i>Sorbus aucuparia</i>	20-25 cm girth

7 Summary and Conclusion

The survey identified four tree features on site consisting of four individual trees. Of these, two tree features were classed as category B and the remaining two tree features were classed as category C.

The tree categorisation method identifies the quality and value of the existing tree stock, but it is not meant to be interpreted rigidly and is presented to form a balanced judgement on tree retention and removal.

The proposals have impacted two tree features on site, of these two are recommended for removal. The remaining tree features on site can be retained.

A precautionary method of working near trees is detailed in the accompanying Arboricultural Method Statement.

Following site development, regular (annual or biannual) inspections of all retained trees should be undertaken by a qualified arboricultural consultant.

It is considered that in following the advice in this document, any negative factors affecting the remaining trees on site will be minimised.

Appendix I.0 Tree Survey Schedule

Arboricultural Impact Assessment – Millbrook Community Primary School, Kirkby

Arboricultural Data Sheet: Millbrook Primary School					Date of Survey: 01/08/22					Surveyor: Jonathan Henderson			
Tree No.	Species	DBH (mm)	Height (m)	Age	Crown Spread (m)				Crown clearance	Condition rating	Comments and preliminary management recommendations	Estimated remaining contribution	Tree quality category rating
					N	E	S	W					
T1	Birch	100	6	SM	1	1	1	1	1	Good	Good shape and form. Potential for future B category tree once it has matured. No major visible defects.	10+	C1
T2	Sycamore	430	8	FM	5	5	5	5	2	Good	Good shape and form. Minor deadwood in the crown. No major visible defects.	20+	B1
T3	Sycamore	610	8	FM	5	5	5	5	2	Good	Good shape and form. Minor deadwood in the crown. No major visible defects.	20+	B1
T4	Purple Norway Maple	150	6	SM	1	1	1	1	2	Good	Good shape and form. Potential for future B category tree once it has matured. No major visible defects.	10+	C1

Appendix 2.0 Tree Survey Key

Arboricultural Impact Assessment – Millbrook Community Primary School, Kirkby

Trees for removal			
Category and definition	Criteria		
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	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 R category trees (i.e. 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 Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality Note – Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree).		
Trees to be considered for retention			
Category and definition	Criteria - Subcategories		
	1 Arboriculture values	2 Landscape values	3 Conservation values
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboriculture features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture)
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboriculture features (e.g. trees of moderate quality within avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits
	Note - Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation		

Age Class

Y	Young	Trees that have not yet established
SM	Semi-Mature	Established trees up to 1/3 of expected height and crown
EM	Early mature	Between 1/3 and 2/3 expected height and crown
M	Mature	Between 2/3 and full expected height and crown
FM	Fully Mature	Full expected height and crown
OM	Over-Mature	Crown beginning to break up and decrease in size
S	Senescent	Crown in advanced stage of break-up

Condition

Good – Feature needs little, if any attention.
Fair – Feature has minor, but rectifiable defects.
Poor – Feature has major defects or is in late decline.
Dead – Feature is dead.

Appendix 3.0 Proposed Development Plans

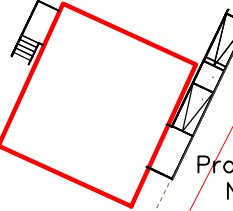
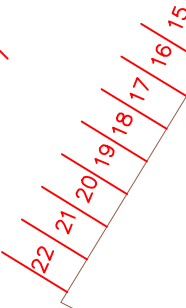
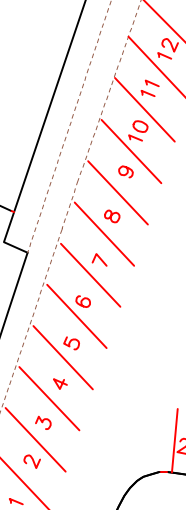
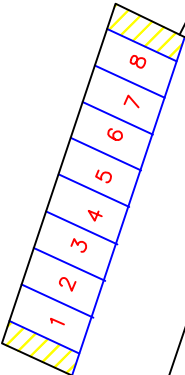
Millbrook Community Primary School

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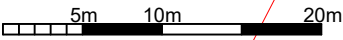
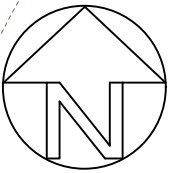
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PRELIMINARY ☐ CLIENT APPROVAL ☐ PLANNING ☐
BUILDING REGS ☐ TENDER ☐ CONSTRUCTION ☐ AS-BUILT ☐

Playground
Area
grassed



Proposed Area of development.
New single storey modular
building



REV	DATE	DESCRIPTION
 Knowsley Council Asset Services Huyton Muncipal Building Archway Road, Huyton Merseyside L36 9UX		
PROJECT MILLBROOK PRIMARY SCHOOL MODULAR PROVISION		CLIENT KMBC
SUBJECT PROPOSED SITE PLAN		PAPER SIZE DATE SCALE 17/06/2022 1:500
PROJECT NR E052_KH	DRAWING NR 002	REV - DRAWN RG CHECKED -

Appendix 4.0 Arboricultural Plans

Millbrook Community
Primary School



Category A Trees



Category B Trees



Category C Trees



Category U Trees



Root protection area

T1

T2

T3

T4



WE KNOW SERVICES

Court Hey Park
Roby Road
Huyton
L16 3NA

Email: info@weknowservices.co.uk

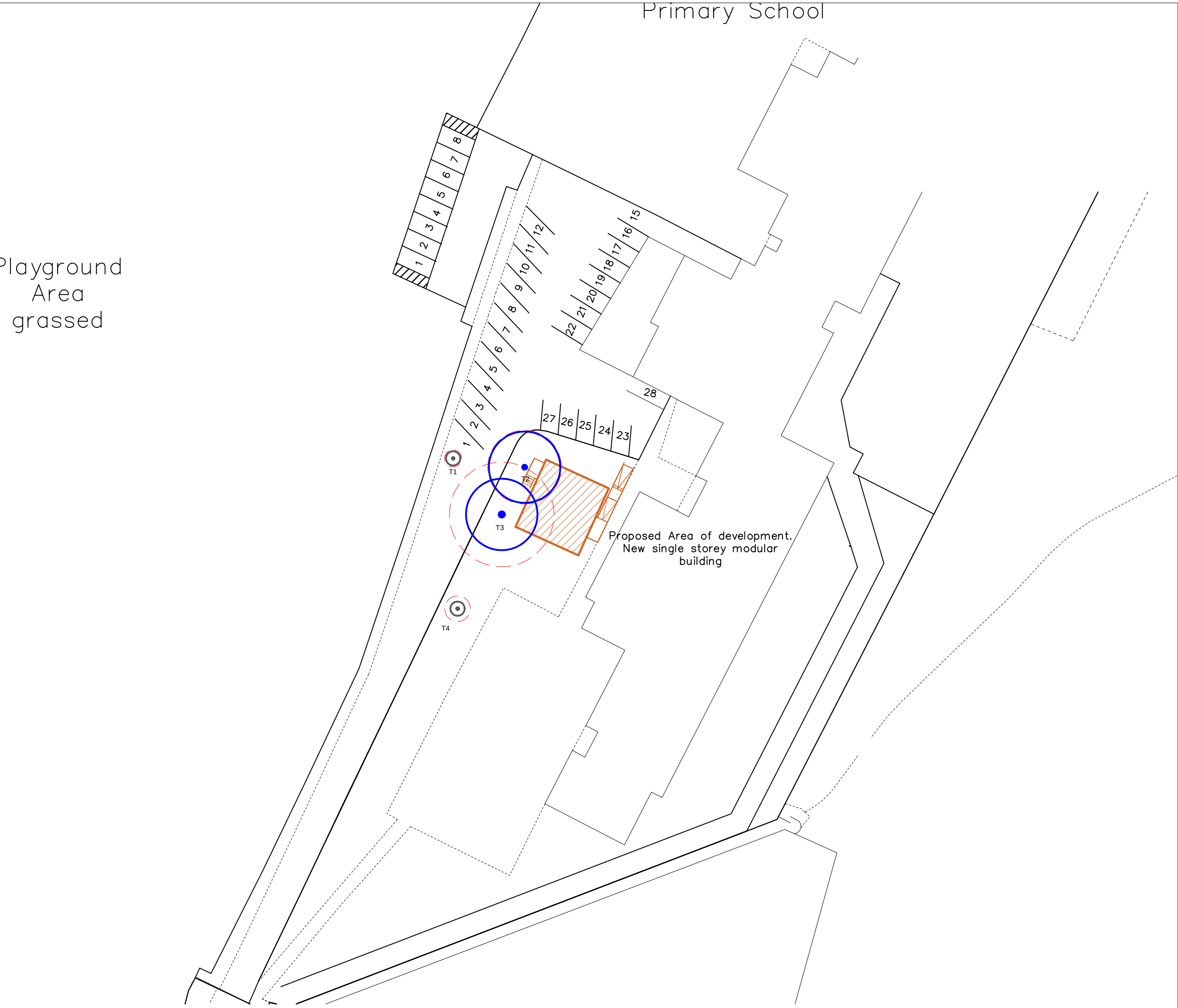
Client:
Knowsley Council

Site Address:
Millbrook Community Primary School
Kirkby Row
Kirkby
L32 0TQ

Drawing Title: BS5837 Plan Drawing No: 22/00038/BSP

Date: 28/07/2022 Scale: 1:500@A3 Drawn by: JH

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-  Category A Trees
-  Category B Trees
-  Category C Trees
-  Category U Trees
-  Root protection area



Court Hey Park
Roby Road
Huyton
L16 3NA

Email: info@weknowservices.co.uk

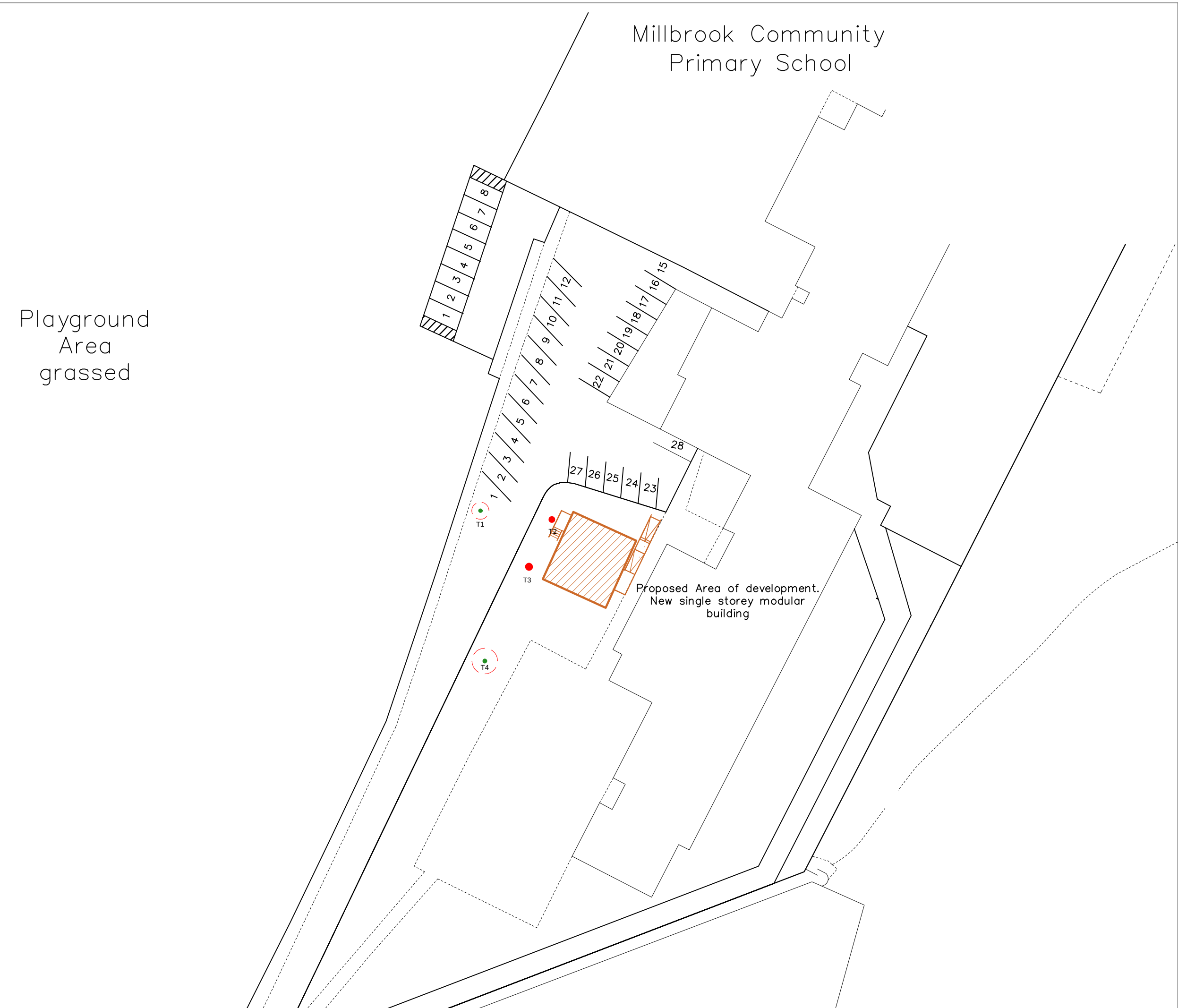
Client:
Knowsley Council

Site Address:
Millbrook Community Primary School
Kirkby Row
Kirkby
L32 0TQ

Drawing Title: AIA Plan Drawing No: 22/00038/AIA

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Retained Trees



Trees to be Removed



Root protection area



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Court Hey Park
Roby Road
Huyton
L16 3NA

Email: info@weknowservices.co.uk

Client:
Knowsley Council

Site Address:
Millbrook Community Primary School
Kirkby Row
Kirkby
L32 0TQ

Drawing Title: Tree Protection Plan 22/00038/TPP Drawing No: 22/00038/TPP

Date: 28/07/2022 Scale: 1:500@A3 Drawn by: JH

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