



WE KNOW SERVICES

ARBORICULTURAL IMPACT ASSESSMENT

WINDY ARBOR PLAYING
FIELD
WINDY ARBOR ROAD
WHISTON
L35 3PN

MAY 2021

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1.0 Introduction

- 1.1 We Know Services were instructed by Knowsley Metropolitan Borough Council to carry out an arboricultural survey of trees on land at Windy Arbor Playing Field.
- 1.2 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- from ground level, noting their location, species and all relevant parameters, i.e. stem diameter, height, crown spread, condition etc.
 - A tree schedule.
 - Advice on the removal, retention, and management of trees.
 - Assessment of the potential effects of the proposal on retained trees and vice versa.
 - Assessment of the requirement for tree protection for the duration of the works; and
 - A mitigation proposal for any loss.
- 1.3 The survey was carried out on 14th May 2021 by means of 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.
- 1.4 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.
- 1.5 The following documents have been made available by the client:
 - Drawing- topo survey 18j195
 - Drawing- 70057126_WSP_XX_XX_SK_LA_P02
- 1.6 All trees have been added to the drawing indicatively. Any dimensions regarding tree positions and protective fencing must be checked on site.
- 1.7 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.
- 1.8 No trees within or near the proposals are subject to preservation orders.

2.0 Survey Methodology

- 2.1 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.
- 2.2 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.
- 2.3 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.
- 2.4 The survey included all trees within the proposal area and trees near to the proposal.

3.0 Development Proposals and Impact Assessment

- 3.1 The site layout plan within Appendix 3.0 identifies the trees in relation to the proposed development.
- 3.2 To fully assess the impact of the proposals an Impact Table (**Table 3.1**) has been created detailing each tree, which shows the proximity of the associated works.
- 3.3 This can then be assessed in accordance with BS 5837:2012 to determine whether proposals will have a detrimental impact on the health of each tree. Once this has been determined remedial measures can be detailed to reduce the impact the proposals will have on the treescape.

Table 3.1: Impact Table

Tree No.	Root Protection Area identified in table 2 of BS5837:2012		Distance to proposed car park (m)	Distance to proposed access gate (m)	Can the tree/s be successfully retained?
	Area (m ²)	Equal to a circle with radius (m)			
G1	31m ²	3.12m	8.5m	4.8m	Yes
T2	23m ²	2.72m	7.2m	0.9m	No
T3	18m ²	2.4m	0m	15.4m	No
T4	24m ²	2.76m	0m	27.3m	No
G5	38m ²	3.48m	3.1m	33.9m	Yes, with special measures

Table 3.2: Impact Assessment

	Trees to be retained		Trees to be removed	
	With no impact	With detailed construction	Due to condition	Due to development
Tree No.	G1	G5		T2, T3, T4

- 3.4 The impact assessment shows that due to the proximity of the proposals, T2, T3 and T4 should be removed to accommodate them.
- 3.5 The loss of these trees will be minimal due to the tree's locations away from public views, the overall conditions and the likelihood the trees are self-seeded.
- 3.6 G5 can be retained, because the proposals impact the root protection area (RPA) by 28.6% it is recommended special measures are incorporated into the design. These are detailed in *section 4.1*.
- 3.7 Due to the proximity to the proposals, G1 can be retained with no impact.

4.0 Mitigation Proposals

4.1 Car Park Construction

- 4.1.1 As shown above, the Impact Table raises concern of the proximity of the proposals to G5 and the effect the proposals would have on the safe useful life expectancy of the trees.
- 4.1.2 If ground levels remain the same, the detrimental effects the car park would have on this tree would be: -
- Compaction, resulting in oxygen depletion, caused from creating the access way.
 - The loss of a permeable surface.
- 4.1.3 It is now possible with the use of a cellular confinement system to be able to create road surfaces very close to trees without having a detrimental effect.
- 4.1.4 A cellular confinement system provides a load transfer mattress which prevents direct loads on tree roots and reduces the bearing pressure on subsoil's by stabilising aggregate surfaces against rutting under wheel loads.
- 4.1.5 A proposed methodology and cross-sectional diagram for the construction of the access way can be found in the accompanying arboricultural method statement.
- 4.1.6 Should this system be used for the car parking, in the area affecting the above trees then the proposals should not have a detrimental effect on the trees.

5.0 Conclusions and Arboricultural Recommendations

- 5.1 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.
 - 5.1.1 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.
- 5.2 A precautionary method of working near trees is detailed in the accompanying Arboricultural Method Statement.
- 5.3 Following site development, regular (annual or biannual) inspections of all retained trees should be undertaken by a qualified arboricultural consultant.
- 5.4 It is considered that in following the advice in this document, any negative factors affecting trees on the site will be minimised.

Appendix 1.0

Tree Survey Schedule

Arboricultural Impact Assessment- Windy Arbor Playing Field

Arboricultural Data Sheet: Windy Arbor Car Park					Date of Survey: 14/05/2021					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					
G1	Mixed Broadleaf	260 MAX	10 MAX	M	4	4	6	3	2	Good	Reasonable shapes and forms. Most multi stemmed. One with minor stem damage. Minor deadwood throughout. No major visible defects.	20+	B2
T2	Ash	160, 160	7	SM	3	3	3	3	2	Fair	Reasonable shape and form. Twin stemmed from 1m. Likely self-seeded. Minor stem damage. No major visible defects.	10+	C1
T3	Ash	200	8	EM	2	2	2	2	0.5	Fair	Reasonable shape and form. Likely self-seeded. Small target cankers on twigs. Minor deadwood throughout. No major visible defects.	10+	C1
T4	Ash	230	9	EM	3	3	3	3	0.5	Fair	Reasonable shape and form. Multi stemmed from base. Minor deadwood. No major visible defects.	10+	C1
G5	Sycamore	290 MAX	11 MAX	M	4	5.5	5	5	0.5	Good	Reasonable shapes and forms. Group of sycamore forming one entire crown. Individually of lower value. Minor deadwood. No major visible defects. Crown lift to 5m above car park.	20+	B2

Appendix 2.0

Tree Survey Key

Arboricultural Impact Assessment- Windy Arbor Playing Field

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)
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
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
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

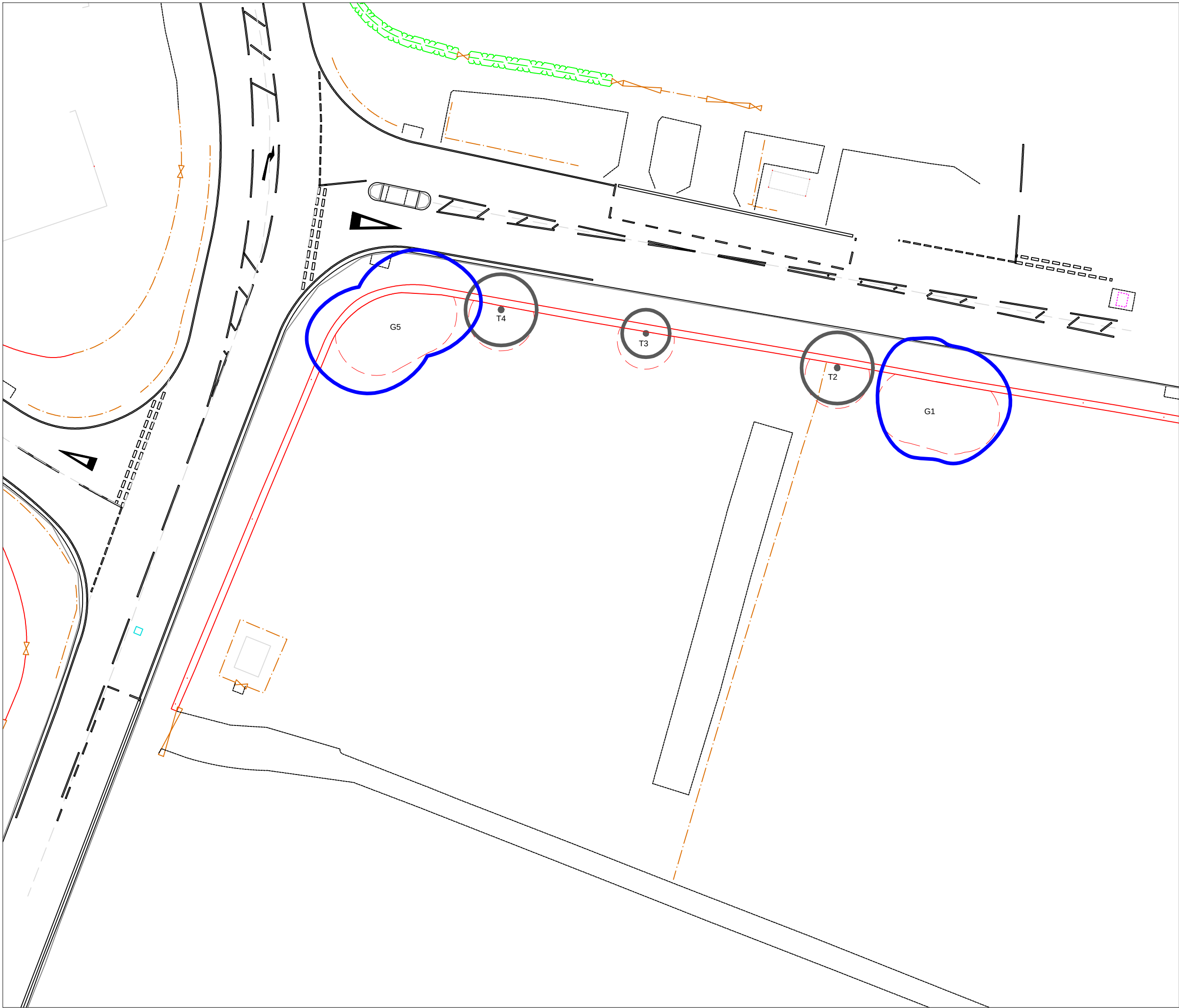
Y	Young	Trees that have not yet established
SM	Semi-Mature	Established trees up to 1/3 of expected height and crown
EM	Early mature	Between 1/3 and 2/3 expected height and crown
M	Mature	Between 2/3 and full expected height and crown
FM	Fully Mature	Full expected height and crown
OM	Over-Mature	Crown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

Condition

1	Good
2	Fair
3	Poor
4	Dead

Appendix 3.0

Plans



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



Court Hey Park
Roby Road
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L16 3NA

Tel: 0151 443 2308
Email: info@weknowservices.co.uk

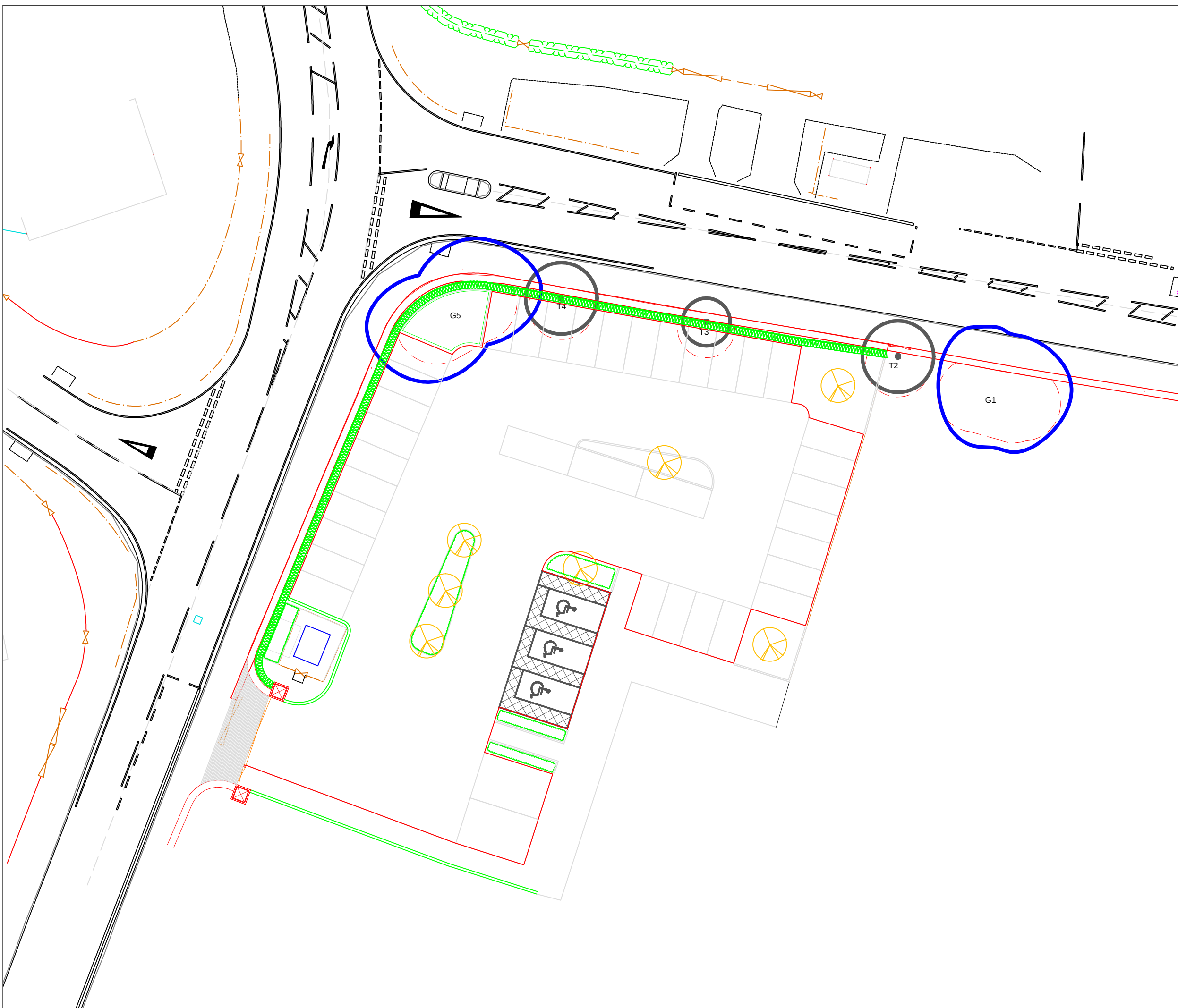
Client:
Knowsley Council

Site Address:
Windy Arbor Road
Whiston
L35 3PN

Drawing Title:	Drawing No:
BS5837 Plan	WA-BS5837

Date:	Scale:	Drawn by:
21/05/2021	1:300@A3	JH

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Site Address:
Windy Arbor Road
Whiston
L35 3PN

Drawing Title: AIA Plan		Drawing No: WA-AIA
Date: 24/05/2021	Scale: 1:300@A3	Drawn by: JH

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