



**Arboricultural Impact Assessment and Method
Statement**

CAS/2021/120

**For
Omni Architecture**

**Proposed Development Site
77A Windsor Rd, Gravesend, Kent, DA12 5BW.**

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1.0 Introduction

1.1 Instruction

1.1.1 Cantia Arboricultural Services were instructed to undertake a tree survey and provide arboricultural advice on the site known as 77A Windsor Rd, Gravesend, Kent, DA12 5BW to accompany a planning application.

1.1.2 The site visit was carried out on Thursday 6th October 2022, between the hours of 1030-1245hrs (135 minutes) and weather conditions were noted as clear with visibility conducive of surveying.

1.2 Aim of Report

1.2.1 To survey in accordance with BS 5837: 2012 ‘Trees in Relation to Design, Demolition and Construction – Recommendations’ to plot and assess the quality of the existing trees located on site and within 15m of proposed development operations.

1.2.2 To assess the impact of the proposed development upon trees located on site and within the immediate vicinity. To provide advice on trees requiring removal and outline protective measures for trees marked for retention.

1.2.3 To provide a work specification as required by retained trees to accommodate the proposed development.

1.2.4 To provide recommendations and guidance on how trees and other vegetation may be successfully retained within the proposed development

1.3 Documentation & Disclosure

1.3.1 The following documentation has been made available

- Existing and Proposed Site Plans - 4119_Windsor Road- New House-Update.dwg

2.0 Site & Tree Discussion

2.1 Site Description

- 2.1.1 The site currently consists of a detached house with a detached garage and associated hard surfaced areas set in a plot of approx. 3,100 square metres (0.76 Acre). The house is located approx. 40m from the entrance and is accessed by a hard surfaced driveway. The land is split between hard surfacing and lawn with trees located predominantly around the border areas.



2.2 Access

- 2.2.1 Vehicle and plant access to site is unencumbered via Windsor Road and existing hard surfaced areas which service the front of the existing property.

2.3 Proposal

- 2.3.1 The proposal is the construction of a 4 bedroom detached house to the West of the existing structure.

2.4 Scope of Report / Limitations

- 2.4.1 This is a preliminary assessment from ground level and observations have been made solely from a visual perspective for the purposes of assessment in terms relevant to

planning and development. No invasive or other detailed internal decay detection devices have been used in assessing internal conditions.

- 2.4.2 All individual trees within a 15m radius of the development that have a stem diameter over 75mm at 1.5m above ground level have been surveyed. Each tree is surveyed and allocated an identifying number. Then data is collected and individual trees measured with regards to their height, stem size, canopy size and potential to pose a material constraint to development. Subject trees are each allocated one of four grade categories (A, B, C or U) indicating their quality. Trees, groups and hedges have been graded upon individual merit in the context of their existing surroundings regardless of any proposed development of the site.
- 2.4.3 Any conclusions relate to conditions found at the time of inspection. Any alteration to the site that may affect the trees that are present or have a bearing on planning implications (including level changes, hydrological changes, extreme climatic events or other site works) will necessitate a re-assessment of the trees and the site and render any previous advice/ findings invalid.
- 2.4.4 Trees are living organisms and even apparently healthy trees cannot be considered completely safe due to forces of nature and environmental fluctuations which dictate a natural failure rate of intact and healthy trees.
- 2.4.5 Where there are access restrictions data has been estimated. This is reflected in the survey schedule with a (#) symbol before measurement.
- 2.4.6 The survey was carried out with the assistance (where required) of the following inspection equipment-
- Binoculars – Inspection of upper sections of the tree
 - Sounding Mallet – Assessment of wood quality, decay extent
 - Steel Probe – To test resistance of wood and depth of cavities
 - Secateurs – Removal of basal growth & ivy to allow inspection
 - DBH (diameter) Tape – Measurement of stem diameter
 - Clinometer- To measure height of tree

- Laser measure – Measurement of canopy dimensions & tree location

2.5 Tree Discussion

2.5.1 A total of twenty-one individual trees, one hedge and one group of trees have been assessed in detail from ground level by visual means only. The Tree Survey Schedule, at Appendix 2, details the trees in respect of dimension and quality in accordance with the methodology set out in the British Standard 5837:2012. The following categories were recorded-

Category	Quantity	Identification Numbers
B	1	G01
C	22	H01, T01 – T21

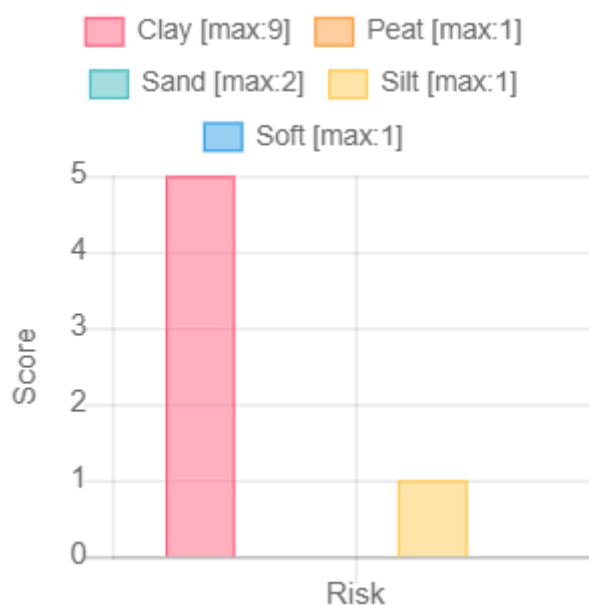
2.5.2 The majority of trees located on site and within the immediate vicinity are individually unremarkable specimens. However, group numbered G01 Mixed species which is located behind the Southern boundary of the plot contains a number of mature specimens and a diverse species range which contributes significantly to the arboricultural value and landscape softening of the area. The root protection area (RPA) of G01 has been plotted using the largest estimated DBH (Diameter at Breast Height) measurement within the group (400mm) to set an RPA of 4.8m. Trees located along the Eastern boundary also provide valuable screening and landscape softening between the property and the adjacent school grounds.

2.5.3 Trees categorised as B are viewed as a constraint to development. Should any proposed development require the removal of trees/groups (or parts of groups) within these categories then it is likely that local authorities would require mitigation in the form of a robust soft landscaping/planting plan. Trees classed as category C are generally not viewed as a constraint although plans to remove large numbers of these would likely still require mitigation.

2.5.4 Where trees have been surveyed and plotted in groups, they typically contain specimens of varying age class and size. Please take note of survey schedule for

indication of average height/size and maximum height/size within group. Where groups of trees have been surveyed and plotted, the largest DBHs' of the trees located along the groups edge have been noted and used to indicate the maximum RPA potential.

- 2.5.5 Also noted on site were numerous small trees / woody shrubs too small to warrant inspection in accordance with BS5837 Trees in Relation to Design, Demolition and Construction 2012:Recommendations.
- 2.5.6 Searches carried out on Gravesham Councils Interactive Map indicated that the site does not fall within a Conservation Area. Further investigation regarding the site revealed that there are no Tree Preservation Orders (TPOs) affecting the site.
- 2.5.7 Soil analysis provided by Terrasure/Airbus indicated a soil with moderate clay content (5/9). Therefore, there is a potential risk of indirect damage caused by soil shrinkage in periods of hot/dry weather. This information must be considered when designing foundations with a recommendation for either pile type foundations or a foundation depth in accordance with NHBC guidelines.



3.0 Arboricultural Impact Assessment on Retained Trees

3.1 Demolition

- 3.1.1 No demolition is scheduled to take place within the measured RPAs' of trees marked for retention and therefore in this instance no specialised demolition techniques are required.

3.2 Construction

- 3.2.1 The foundations of the proposed new construction will conflict with the measured RPA of tree numbered T06 Eucalyptus by 0.012 square metres (0.016% of total RPA). Therefore, a pre-emptive root pruning trench will be excavated. This must be implemented as outlined in section P4.2 of the Arboricultural Method Statement and where shown on the Tree Protection Plan CAS/2021/120.
- 3.2.2 No service run plans have been provided. It is assumed that existing ducts and runs will be utilised and augmented within the design. Adequate space exists on site so that any requirement for fresh runs can be located outside of the measured RPAs' of trees marked for retention.

3.3 Trees Requiring Removal

- 3.3.1 The proposal requires the removal of the following trees –

Tree Number / Species	Category	Comment
T07 Ash	C	Removal required to accommodate proposal

- 3.3.2 Visibility of the removed tree within the public realm is limited. There is good scope for replacement planting which can match and in time enhance the arboricultural, ecological and wider landscape contribution of the area to the public.

3.4 Implications for Retained Trees

- 3.4.1 Trees marked for retention will require no additional pruning or intervention due to the proposed development.

4.0 Conclusions

- 4.1.1 The proposal requires the removal of one Category C tree with limited visibility within the public realm. However, considering there is scope and adequate space to mitigate this loss with new tree planting, there is an opportunity to consider how future tree planting could match or even enhance the existing visual character of the site in relation to the local area.
- 4.1.2 So long as the precautionary and protective measures outlined within this report are strictly observed and adhered to then the proposed development will have neutral impact upon trees marked for retention.

Arboricultural Method Statement

1.0 Summary

- 1.1 This document outlines the principles that are approved and enforced by the local planning authority, including site specific instructions on the methods required to protect the existing tree stock agreed for retention. These methods are set out in a logical sequence of operations with location of protective measures shown on the accompanying Tree Protection plan CAS/2021/120.

2.0 Important Tree Information

- 2.1 As the majority of tree roots are found in the upper metre of soil, development works, including for example even shallow excavation, soil compaction and soil contamination, can be harmful to trees in close proximity. Trees differ in their tolerance of root loss or disturbance, according to their age, species and/or condition. All protection works within this document will be in accordance with BS 5837: 2012 ‘Trees in Relation to Design, Demolition and Construction – Recommendations’
- 2.2 An assessment of the site’s tree stock has been undertaken and those trees to be retained are clearly shown on the Tree Protection Plan (TPP). A calculation has been made of the volume of soil required to ensure the survival of these and this is represented by the Root Protection Area (RPA) indicated by the magenta circles or squares around the retained tree on the plan.
- 2.3 The RPA has been used to inform the Construction Exclusion Zone (CEZ), the area to be protected during development by the use of barriers, ground protection and specialised construction techniques - outlined below:-

3.0 Sequenced Methods of Construction and Tree Protection

P1.0 Phase 1 - Pre-Contract Meeting

- P1.1 If stipulated by the local authority an onsite meeting will be held with all relevant parties including the developer, appointed arboricultural supervisor and Local Planning Authority (LPA) representative.

P2.0 Phase 2 - Execute Agreed Tree Works

Tree Number	Proposed Works	Reason
T07 Ash	Removal	Removal required to accommodate proposal

- P2.1 All tree work is to conform to BS 3998:2010 and to current arboricultural best practice. Tree works are to be undertaken by a professional and specialist arboricultural contractor, who carries the appropriate experience and insurance cover and following formal approval from the LPA

P3.0 Phase 3 - Tree Protection Barriers and ground protection

- P3.1 In order to protect the tree stems from significant construction activity, protection barriers will be erected. See Plan for fencing location. Fencing should be of a reasonable standard and suitable for the purpose of preventing machinery entering the protected zones see example given below in appendix 1.
- P3.2 BS5837 Trees in Relation to Design, Demolition and Construction (2012) requires that the root protection area be calculated for each tree marked for retention on the development. The root protection area is the minimum area in m² which should be left undisturbed around each retained tree, including the delivery of machinery, materials, plant or equipment to the site or any adjacent land. The protective measures will remain in situ until final completion or a time agreed by the LPA and Contractor.

- P3.3 Tree protection fencing will be required to be installed as shown on the Tree Protection Plan CAS/2021/120. Fit for its purpose fencing must be installed after any required tree works and prior to any construction operations on site. Once the barriers have been properly erected in position, they are to be considered as sacrosanct and are not to be removed or altered in any way without prior approval from the LPA.
- P3.4 Clear notices as shown below are to be fixed to the outside of the fencing with words such as ‘Tree Protection Zone – Do not remove this fencing’. All operatives and other relevant personnel are to be informed of the role of the exclusion barriers and their importance. Protective fencing should remain in situ throughout the entire construction process. The site manager should be aware that it is his responsibility to maintain protective measures adequately and these should be casually inspected at regular intervals with written records of inspection.



- P3.5 Where stipulated on the Tree Protection Plan ground protection should be laid. The gross weight of predicted traffic in the area should be calculated and ground protection laid as stipulated below –
- *For pedestrian access, a single thickness of scaffold boards placed on a driven scaffold frame, so as to form a suspended walkway or on a compressive- resistant layer such as, e.g. woodchip 100mm min, laid onto a geotextile membrane will be sufficient.*

- *For pedestrian operated machinery up to a gross weight of 2t inter linked ground protection boards places on top of a compression- resistant layer, as above, will be required.*
- *For machinery greater than 2t and engineered specification will be required.*

P3.6 If there is a requirement to move or carry out operations inside the area of protective fencing then ground protection should be laid over any exposed ground prior to movement or works commencing. This should be laid in accordance with section P3.5 of the Arboricultural Method Statement.

P3.7 When there is a requirement to carry out work in an area covered with ground protection then only the immediate area of work should have the protection rolled/scraped back. Once the task in hand is completed then ground protection should be instantly re-instated.

P3.8 Adequate room is available for the locating of compounds and material storage within the site boundaries and outside of any measured RPA.

P4.0 Phase 4 - Ground works

P4.1 Spoil, including soil and rubble surplus to requirements will be removed from site and not stored against any protective fencing.

P4.2 Where foundations require pre-emptive root pruning this should be excavated outside the line of foundation closest to the tree by hand or with the use of an air pick to a depth of 600mm. Roots discovered less than 25mm in diameter may be cut, roots greater than 25mm in diameter must only be cut after consultation with the project arboriculturalist and or the LPA. Once roots have been cut conventional excavation can be carried out.

P4.3 Service runs to be located outside any indicated RPA.

P5.0 Phase 5 - Dismantling Protection Barriers and Landscaping Works

- P5.1 A minimum notice period of seven days will be given to the LPA prior to the dismantling of the protection barriers.
- P5.2 All landscaping once the barriers have been removed will avoid soil re-grading and disturbance within the CEZ and no soil levels be altered after the protection barriers have been removed. All vehicles are strictly prohibited from entering any RPA once barriers are removed.

4.0 General Principles for Tree Protection

- 4.1 A copy of this AMS and the attached TPP is to be retained on site at all times and all personnel associated with the construction process will be made familiar with the principles within.
- 4.2 No fires are to be lit on site at any stage during the construction process.
- 4.3 A designated storage area is to be created away from retained trees. All materials for construction purposes are to be stored in this compound. Care must be taken to avoid the leakage or leaching of noxious materials into the soil.
- 4.4 No materials will be stored or left stacked in positions around the site other than within the storage compound area.

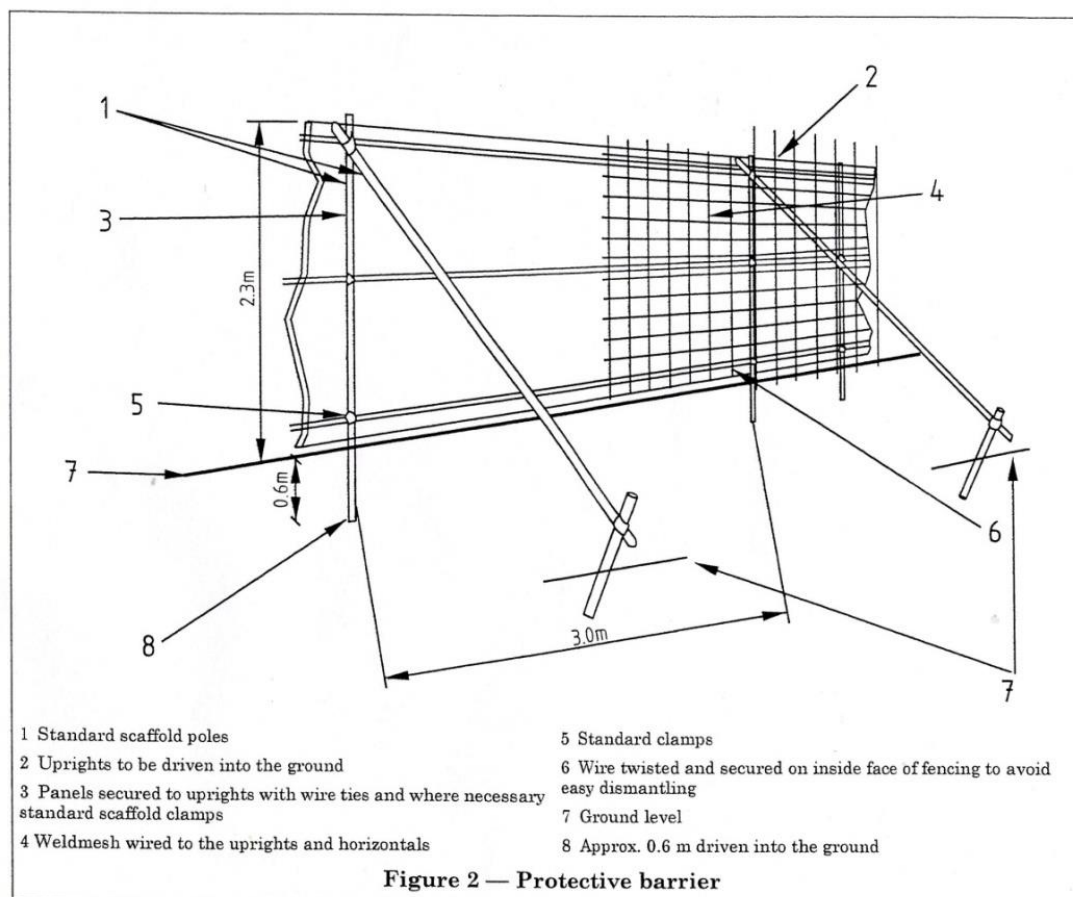
5.0 Communication Details, Monitoring and Compliance

- 5.1 In order to ensure that the principles of tree protection set out in the statement are adhered to, it is important to set out communication details for key individuals and tasks that require monitoring. These details should be retained by all relevant parties and available on site at all times. Relevant parties will be advised of any changes in personnel or contractor during the development process.

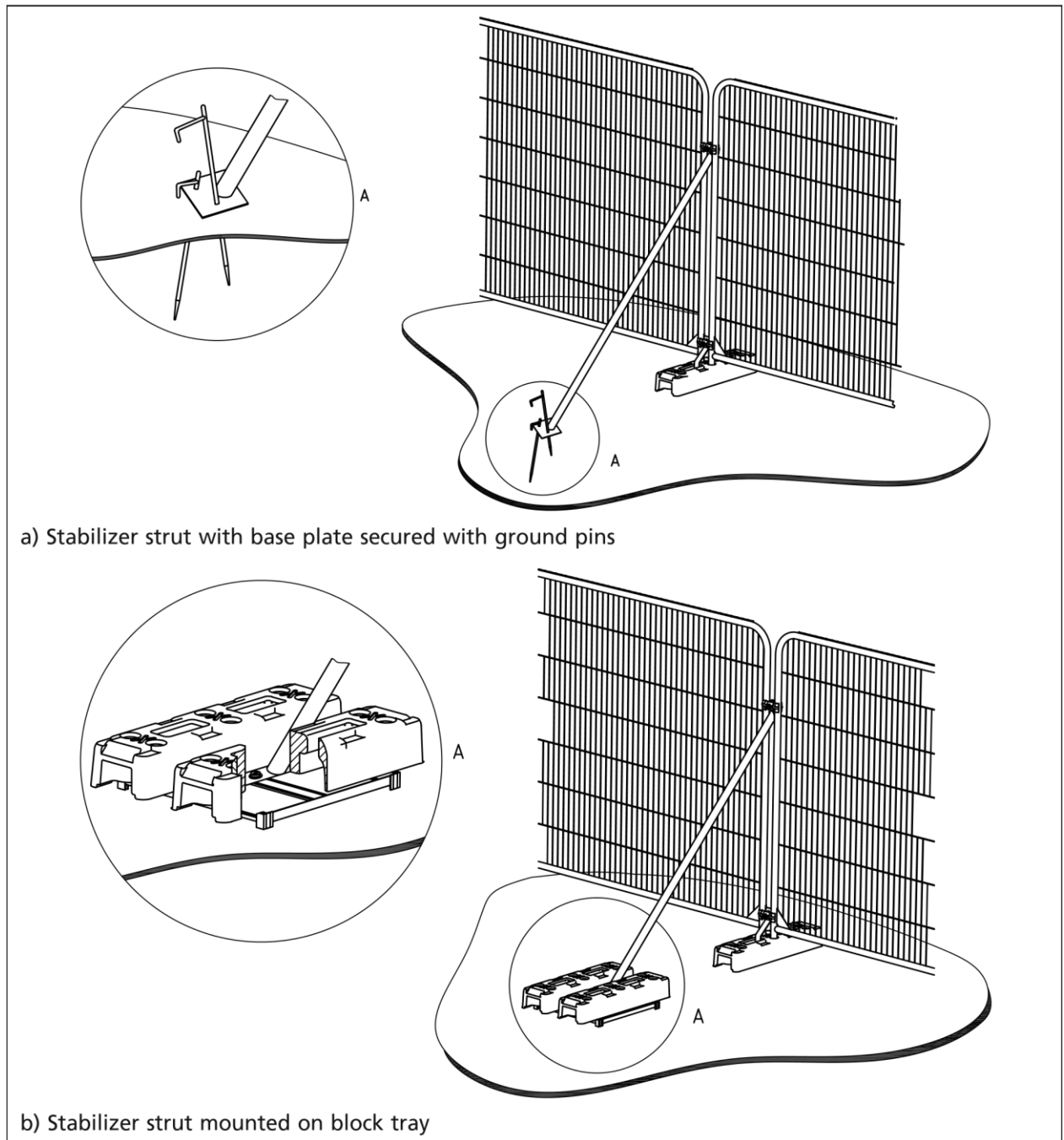
- 5.2 Before construction begins written confirmation that the developer/contractor or its agents agree to comply in full with the principles set out within this Method Statement will be lodged with the LPA.

Appendix 1: Tree Protection Fencing

High Traffic Areas



Low Traffic Areas



Appendix 2 - Tree Schedule Explanatory Notes

Ref.no	Identifies trees, groups and hedges on the accompanying plan.
Species	Common names are provided to aid wider comprehension.
Height	Describes the approximate height of the tree measured in metres from ground level
Canopy Spread	Indicates the crown radius from the base of the tree in four compass directions, recorded to the nearest metre.
Ground Clearance	Height of crown clearance above adjacent ground in metres.
DBH (mm)	DBH is the diameter of the stem measured in cm at 1.5m from ground level for single stemmed trees or just above root flare for multi-stemmed trees. Stem Diameter may be estimated where access is restricted.
RPR (cm)	Root Protection Radius (RPR) is area required to be protected measured radially from the trunk centre.
RPA (m2)	Root Protection Area (RPA) is the minimum rooting area in m2 which should remain undisturbed around each tree.
Age Class	Age of the tree expressed as Y- Young, MA- Middle-Aged, EM- Early Mature, M- Mature or OM- Over-Mature
General Condition	Overall condition of tree expressed as :Good, Fair, Poor, Dead
Physiological and structural condition	May include general comments about growth characteristics, how it is affected by other trees and any previous surgery works. Also specific problems such as dead wood, pests, diseases, broken limbs. Etc
Estimated Remaining Years	Categorised in year bands of less than 10, 10+, 20+, 40+
BS Category	B.S. Cat refers to (BS 5837:2005 Table 1) and refers to tree/overall group quality and value; 'A' - High; 'B' - Moderate; 'C' - Low; 'U' - Remove.
Sub Category	Sub Cat refers to the retention criteria values where 1 is arboricultural, 2 is landscape and 3 is cultural including conservational, historic and commemorative

Appendix 3 – Tree Retention Category (as per cascade chart, Table 1, B.S. 5837:2012)

Tree Category	Description
A	Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years. 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).
B	Category B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. 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.
C	Category C - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm. 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.
U	Category U – Trees 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 are dead or are showing signs of significant, immediate, and irreversible overall decline.

BS5837 Survey Data



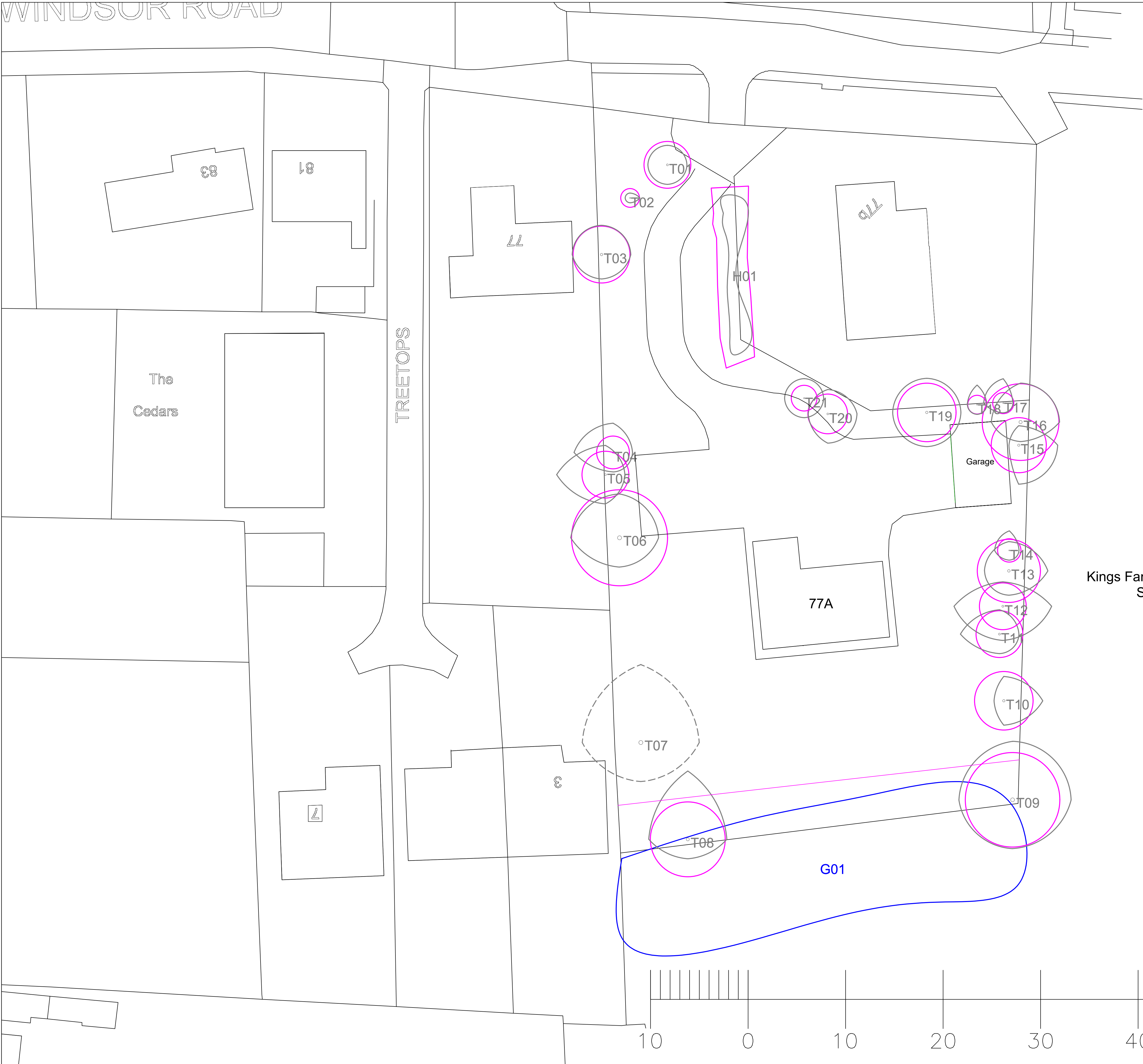
Ref.	Species	Measurements	General Observations	Category	Recommendations
G01	Ash (Fraxinus sp.) Sycamore (Acer pseudoplatanus) Field Maple (Acer campestre) White Mulberry (Morus alba) Wild Cherry (Prunus avium) Elm (Ulmus sp.)	Height (m): 16 Life Stage: Mature Rem. Contrib.: 30+ Years	Mixed group with largest dbh noted @ 400mm	B1,2 RPA Area: 429 sq m, plus a 1m buffer.	
H01	Acacia (Acacia sp.) Hazel (Corylus avellana) Hawthorn (Crataegus sp.) Dogwood (Cornus sp.)	Height (m): 4.5 Life Stage: Early Mature Rem. Contrib.: 30+ Years	Dbh up to 100mm	C2 RPA Area: 21 sq m, plus a 1m buffer.	
T01	Western Red Cedar (Thuja plicata)	Height (m): 8 Stem Diam (mm): 200 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 2.4m. Area: 18 sq m.	

Ref.	Species	Measurements	General Observations	Category	Recommendations
T02	Italian Cypress (Cupressus sempervirens)	Height (m): 3.5 Stem Diam (mm): 80 Spread (m): 0.5N, 1E, 0.5S, 0.5W Life Stage: Young Rem. Contrib.: 20+ Years		C1 RPA Radius: 1.0m. Area: 3 sq m.	
T03	Sycamore (Acer pseudoplatanus)	Height (m): 7.5 4 stems, diam(mm): 120, 130, 90, 140 Spread (m): 3N, 3E, 2.5S, 3#W Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Tree in physical contact with adjacent outbuilding Tree canopy in close proximity to adjacent dwelling	C1 RPA Radius: 2.9m. Area: 26 sq m.	
T04	Sycamore (Acer pseudoplatanus)	Height (m): 8 Stem Diam (mm): 140 Spread (m): 3N, 2E, 2S, 4#W Crown Clearance (m): 1.5 Lowest Branch (m): 2(W) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Tree in physical contact with adjacent fence	C1 RPA Radius: 1.7m. Area: 9 sq m.	
T05	Sycamore (Acer pseudoplatanus)	Height (m): 10 Stem Diam (mm): 200 Spread (m): 3N, 2E, 3S, 5#W Crown Clearance (m): 2 Lowest Branch (m): 2(W) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Tree in physical contact with adjacent building	C1 RPA Radius: 2.4m. Area: 18 sq m.	
T06	Eucalyptus (Eucalyptus sp.)	Height (m): 17 Stem Diam (mm): 410 Spread (m): 4.5N, 4E, 3S, 5#W Crown Clearance (m): 3.5 Lowest Branch (m): 4(SE) Life Stage: Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 4.9m. Area: 75 sq m.	

Ref.	Species	Measurements	General Observations	Category	Recommendations
T07	Ash (Fraxinus sp.)	Height (m): 13 Stem Diam (mm): 420 Spread (m): 8N, 6E, 4S, 6#W Crown Clearance (m): 3 Lowest Branch (m): 3(N) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Torn out limbs noted in canopy to East & South	C1 RPA Radius: 5.0m. Area: 79 sq m.	
T08	Ash (Fraxinus sp.)	Height (m): 14 Stem Diam (mm): 320 Spread (m): 7N, 4E, 2#S, 4W Crown Clearance (m): 4 Lowest Branch (m): 3.5(N) Life Stage: Mature Rem. Contrib.: 10+ Years	Prolific ivy cover on main stem Insect defoliation noted throughout canopy Canopy cover sparse in comparison to adjacent trees of same size / species	C1 RPA Radius: 3.8m. Area: 45 sq m.	
T09	Sycamore (Acer pseudoplatanus)	Height (m): 16 2 stems, diam(mm): 300, 270 Spread (m): 6N, 6#E, 5#S, 5.5W Life Stage: Mature Rem. Contrib.: 20+ Years	Tight union at 1-1.5m above ground level Wooden construction erected around tree	C1 RPA Radius: 4.8m. Area: 72 sq m.	
T10	Pear (Pyrus sp.)	Height (m): 10 Stem Diam (mm): 250 Spread (m): 2.5N, 4#E, 2.5S, 1W Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 3.0m. Area: 28 sq m.	
T11	Crab Apple (Malus sylvestris)	Height (m): 8.5 Stem Diam (mm): 200 Spread (m): 2.5N, 2E, 2S, 4W Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 2.4m. Area: 18 sq m.	
T12	Honey locust (Gleditsia triacanthos)	Height (m): 10 Stem Diam (mm): 200 Spread (m): 2.5N, 5#E, 3.5S, 5W Life Stage: Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 2.4m. Area: 18 sq m.	

Ref.	Species	Measurements	General Observations	Category	Recommendations
T13	Silver Birch (Betula pendula)	Height (m): 9.5 Stem Diam (mm): 270 Spread (m): 3N, 4#E, 2.5S, 2.5W Life Stage: Mature Rem. Contrib.: 10+ Years	Root damage (severed) noted to west	C1 RPA Radius: 3.2m. Area: 32 sq m.	
T14	Rowan (Sorbus aucuparia)	Height (m): 4 Stem Diam (mm): 100 Spread (m): 2N, 1E, 1S, 1.5W Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 1.2m. Area: 5 sq m.	
T15	Cherry (Prunus sp. 'Cherry')	Height (m): 8 4 stems, diam(mm): 110, 120, 150, 80 Spread (m): 2N, 4#E, 4S, 1W Life Stage: Early Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 2.8m. Area: 25 sq m.	
T16	Cherry (Prunus sp. 'Cherry')	Height (m): 8.5 6 stems, diam(mm): 120, 120, 140, 130, 140, 150 Spread (m): 4N, 4#E, 2S, 3W Life Stage: Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 3.9m. Area: 48 sq m.	
T17	Ash (Fraxinus sp.)	Height (m): 6.5 Stem Diam (mm): 90 Spread (m): 2.5#N, 1E, 1S, 2W Life Stage: Semi Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 1.1m. Area: 4 sq m.	
T18	Ash (Fraxinus sp.)	Height (m): 6.5 Stem Diam (mm): 80 Spread (m): 2#N, 1E, 1S, 1W Life Stage: Semi Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 1.0m. Area: 3 sq m.	

Ref.	Species	Measurements	General Observations	Category	Recommendations
T19	Silver Birch (Betula pendula)	Height (m): 11 Stem Diam (mm): 250 Spread (m): 3.5N, 3.5E, 3.5S, 3.5W Life Stage: Early Mature Rem. Contrib.: 30+ Years		C1 RPA Radius: 3.0m. Area: 28 sq m.	
T20	Russian Olive (Elaeagnus angustifolia)	Height (m): 4.5 Stem Diam (mm): 170 Spread (m): 2.5N, 3E, 3S, 2W Life Stage: Mature Rem. Contrib.: 30+ Years		C1 RPA Radius: 2.0m. Area: 13 sq m.	
T21	Silver Birch (Betula pendula)	Height (m): 6.5 Stem Diam (mm): 110 Spread (m): 2#N, 2E, 2S, 2W Life Stage: Semi Mature Rem. Contrib.: 30+ Years		C1 RPA Radius: 1.3m. Area: 5 sq m.	



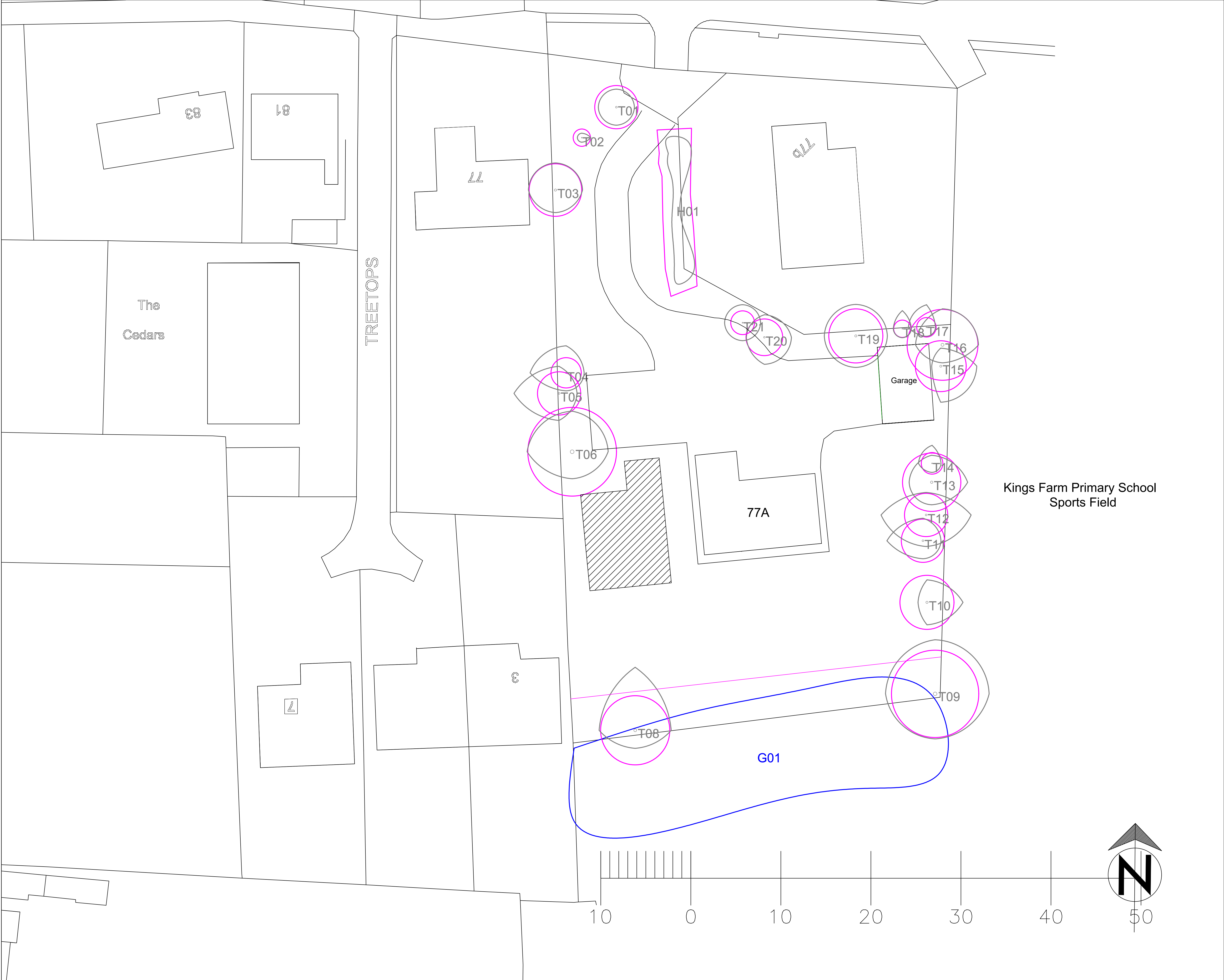
Arboricultural Constraints Plan

KEY

- T1 Existing Tree colour referenced in accordance with BS 5837 2012 as shown below
- Blue – Cat B Trees of moderate quality and value
- Grey – Cat C Trees of low quality and value
- Root Protection Area as calculated in accordance with BS 5837 2012
- Existing Tree to be Removed.

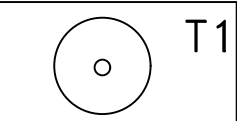
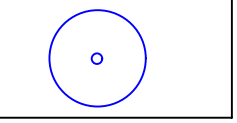
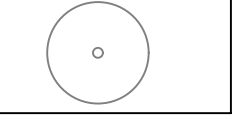
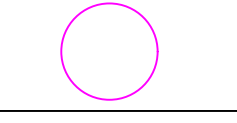
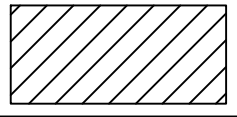
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Please do not scale off this drawing. Tree locations not plotted to a topographical survey so locations cannot be confirmed, Dwg is to scale as indicated above.



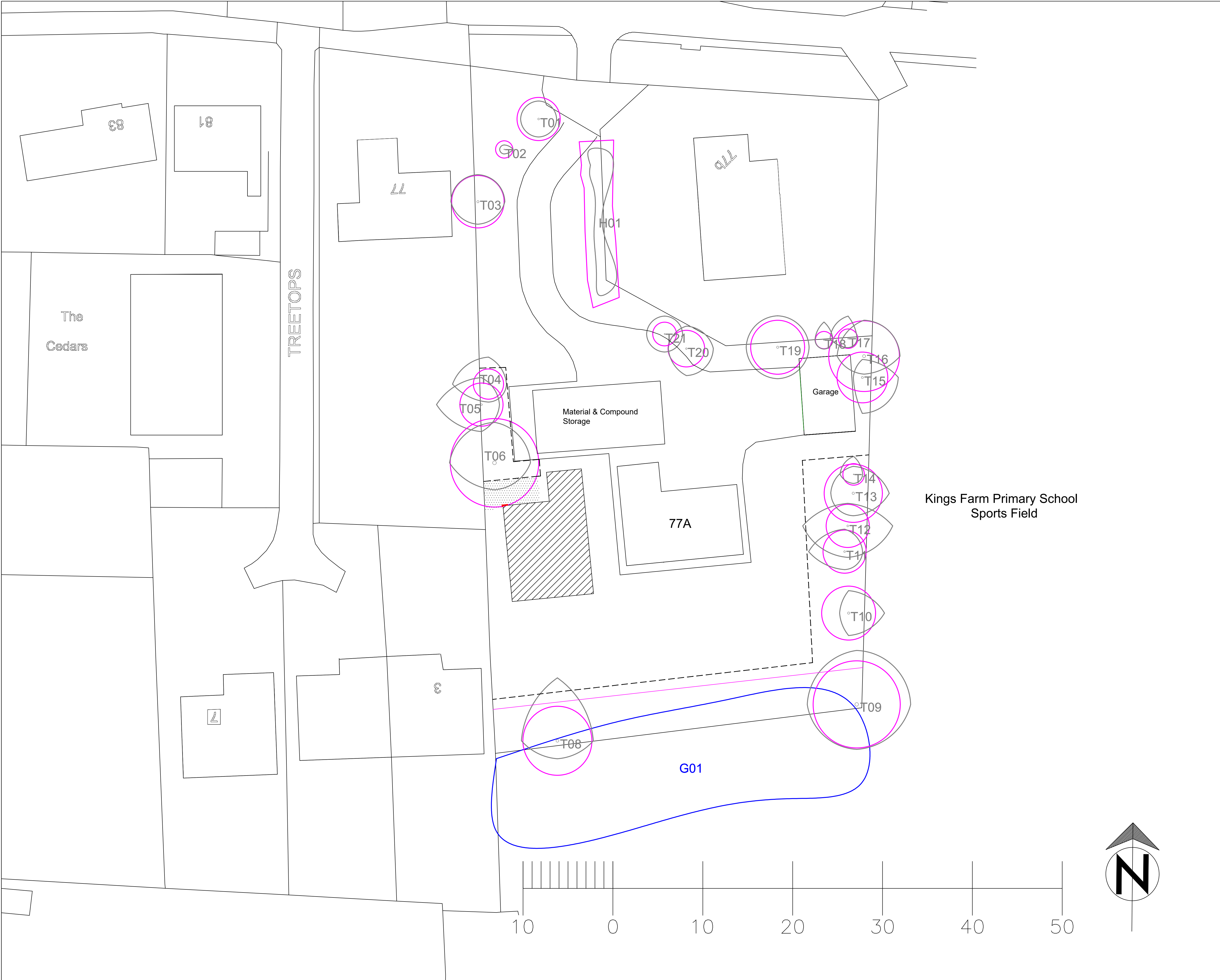
Proposed Development Plan

KEY

-  T1 Existing Tree colour referenced in accordance with BS 5837 2012 as shown below
-  Blue – Cat B Trees of moderate quality and value
-  Grey – Cat C Trees of low quality and value
-  Root Protection Area as calculated in accordance with BS 5837 2012
-  Area of proposed new construction

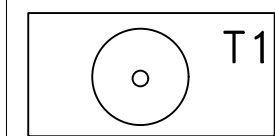
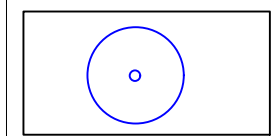
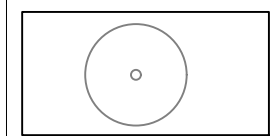
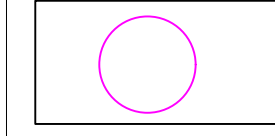
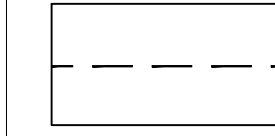
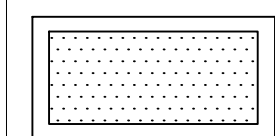
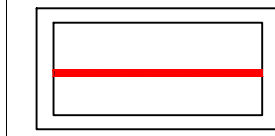
REV.	DATE	INITIALS	DETAILS	
CLIENT Omni Architecture			DWG. TITLE Proposed Development Plan	
SITE 77A Windsor Rd, Gravesend, Kent, DA12 5BW				
DRAWN BY BJJ	CHECKED BY BJJ	SCALE 1:200 @ A1	DATE October 2022	DWG NO. CAS/2021/120
				REV.

Please do not scale off this drawing. Tree locations not plotted to a topographical survey so locations cannot be confirmed, Dwg is to scale as indicated above.



Tree Protection Plan

KEY

-  T1 Existing Tree colour referenced in accordance with BS 5837 2012 as shown below
-  Blue – Cat B Trees of moderate quality and value
-  Grey – Cat C Trees of low quality and value
-  Root Protection Area as calculated in accordance with BS 5837 2012
-  Approximate line of protective fencing to be erected in accordance with BS5837 and to be maintained throughout entire development process.
-  Area designated for Ground Protection.
-  Location of pre-emptive root pruning trench.

REV.	DATE	INITIALS	DETAILS
CLIENT	Omni Architecture		
DWG. TITLE	Tree Protection Plan		
SITE	77A Windsor Rd, Gravesend, Kent, DA12 5BW		
DRAWN BY	CHECKED BY	SCALE	DATE
BJS	BJS	1:200 @ A1	October 2022
DWG NO.	CAS/2021/120		
REV.			

Please do not scale off this drawing. Tree locations not plotted to a topographical survey so locations cannot be confirmed, Dwg is to scale as indicated above.