Thomson
environmental
consultants

Harefield Academy, Hillingdon

Arboricultural Impact Assessment

And

Arboricultural Method Statement

For ISG Engineering Services Ltd

Project No.: ISG001-010

February 2024

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Project Number	Report No.
ISG001-010	002

Revision No.	Date of Issue	Author	Reviewer	Approver
001	13.09.2023	James Baker	Andrew Poynter	Andrew Poynter
002	27.02.2024	James Baker	Robert Armitage	Arthur Cullen

Disclaimer:

1. Summary

1.1.1 ISG Engineering Services Ltd is propsing the revelopment of a dissued school building. The proposal incules the demolotion and constrcution of a new teaching faciliate and the installation of a new substation within Harefield Academy, Hillingdon, Uxbridge, UB9 6ET.

1.1.2 ISG Engineering Services Ltd commissioned Thomson Environmental Consultants to undertake a arboricultural survey in accordance with BS5837:2012 '*Trees in Relation to Design, Demolition and Construction – Recommendations'* on 21st August 2023 by James Baker (Arboricultural Consultant) Cert Arb L4 (ABC, TechArborA), to produce an Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) which discusses the likely impacts of the development proposal on the trees at the site and the details the measures required to effectively protect retained trees.

1.1.3 All trees were categorised in accordance with the cascade chart for tree quality assessment in BS5837:2012 (see Appendix 2). Trees were given a ranking of A, B or C in descending order of value and assigned one or more subcategories qualifying the basis of that value as either arboricultural, landscape or cultural. Trees with only short-term remaining value or that require immediate removal for safety or management reasons are given a U rating.

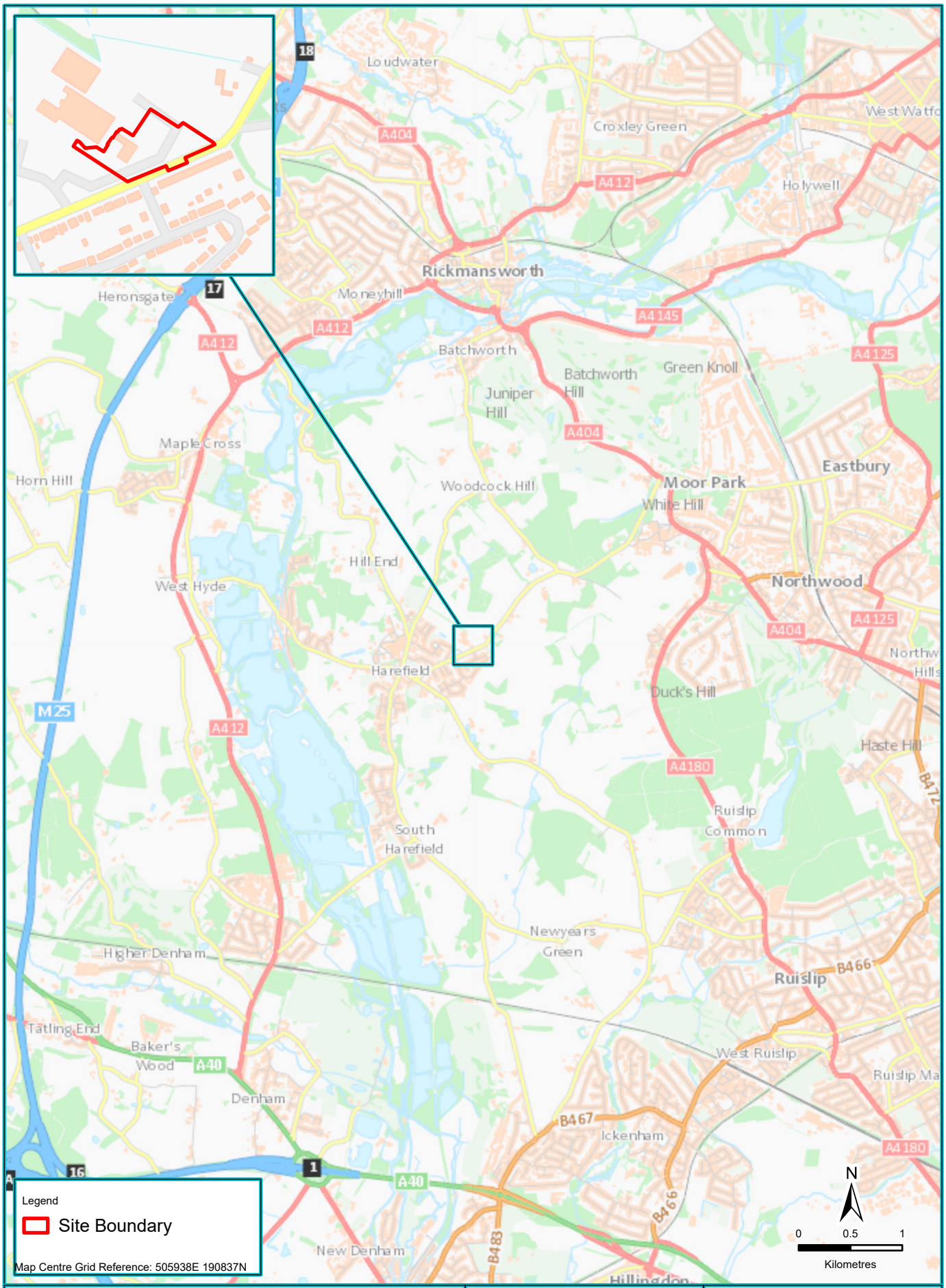
1.1.4 A total of 24 individual trees and 5 groups of trees were recorded during the survey, details of which are listed in the Tree Schedule at Appendix 1. This comprised of 20 Category 'B' individual trees, 4 Category 'C' individual trees and 5 Category 'C' groups of trees.

1.1.5 Category A, B and C trees represent a material consideration to development. Concerted effort should be made to retain A and B category trees within the development. While Category C trees should be retained where possible, they should not be retained where they would present a serious constraint to development.

1.1.6 Checks made on London Borough of Hillingdon Council's online interactive mapping software indicate that no trees included within this survey report are subject to any tree preservation orders and the site is not located within a conservation area. There is a tree preservation order affecting the trees along the northeast boundary of the site, but the designation area is located outside the site boundary further north than tree group 'G003' of our survey.

1.1.7 Overall, the arboricultural impacts associated with the development of the site are considered acceptable and can be mitigated by the protection measures listed within this report, along with a detailed comprehensive arboricultural method statement.

1.1.8 Trees removed as part of the proposals should be replaced at the landscaping stage of the project, to include, where feasible, the provision for the planting of a mixture of native, as well as ornamental trees, shrubs and hedges suitable to the local and wider landscape.



Client: ISG Engineering Services Ltd		Drawing Ref: ISG001-010/403256/1	
Figure Number: 1		Scale at A4: 1:50,000	
Figure Title: Site Location		Drawn: JB	Checked: AS
		Date: 29/08/2023	Date: 29/08/2023

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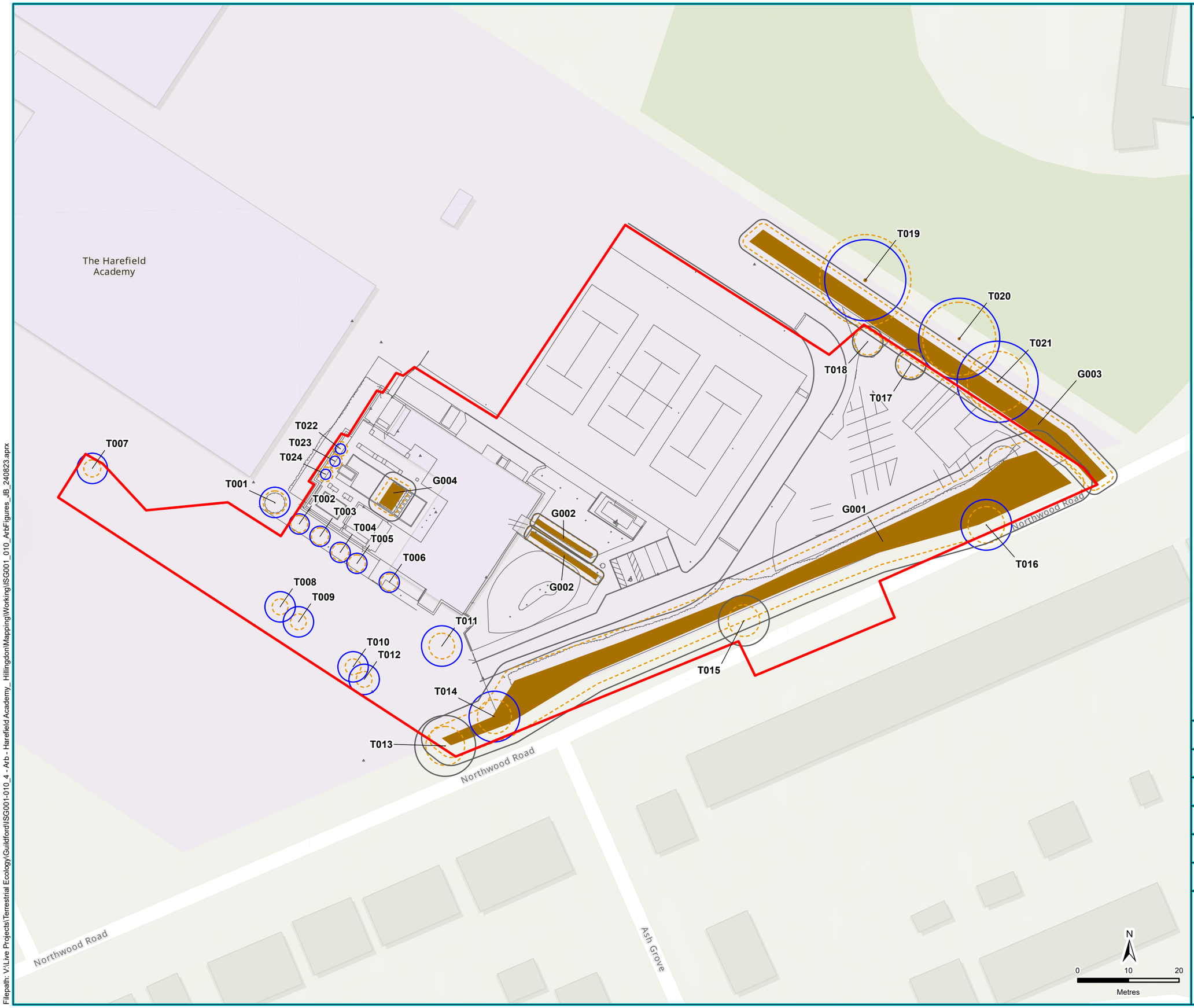

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Legend

- Canopy Extent of Category 'B' Tree
- Canopy Extent of Category 'C' Tree
- Root Protection Area of Tree / Group
- Extent of Tree Stems within Groups / Hedges
- Site Boundary

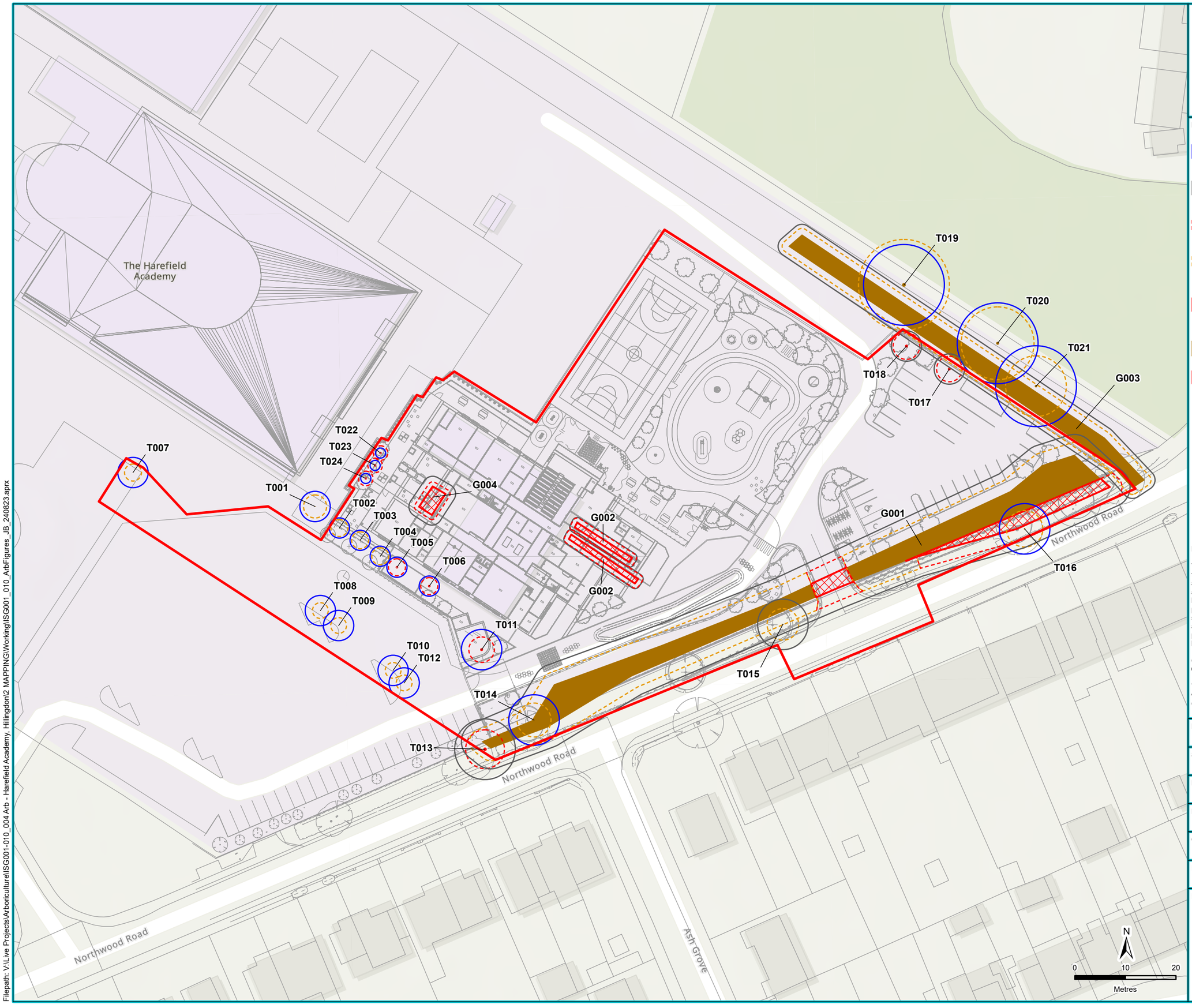
Map Centre Grid Reference: 505943E 190835N

This map has been drawn at a sufficient level of accuracy to fulfil the requirements of an Arboricultural survey. The level of accuracy depends on both the size of the area involved, GPS accuracy and the detail of topographic mapping. Every effort has been made to create a map that is as accurate as possible. However, this map is not intended to represent a scaled landscape survey so should not be used to pin-point accurate engineering work or as a basis for detailed site planning where an accurate topographical survey has not been provided to help inform the arboricultural survey.

Drawing Ref	ISG001-010/403256/1
Scale at A3	1:700
Drawn: JB	Checked: AS
Date: 29/08/2023	Date: 29/08/2023
Client	ISG Engineering Services Ltd
Figure Number	2

Figure Title

Tree Constraints Plan (TCP01)



Filepath: V:\Live Projects\Arboriculture\ISG001-010_004 Arb - Harefield Academy, Hillingdon\2 MAPPING\Working\ISG001_010_ArbFigures_JB_240823.aprx

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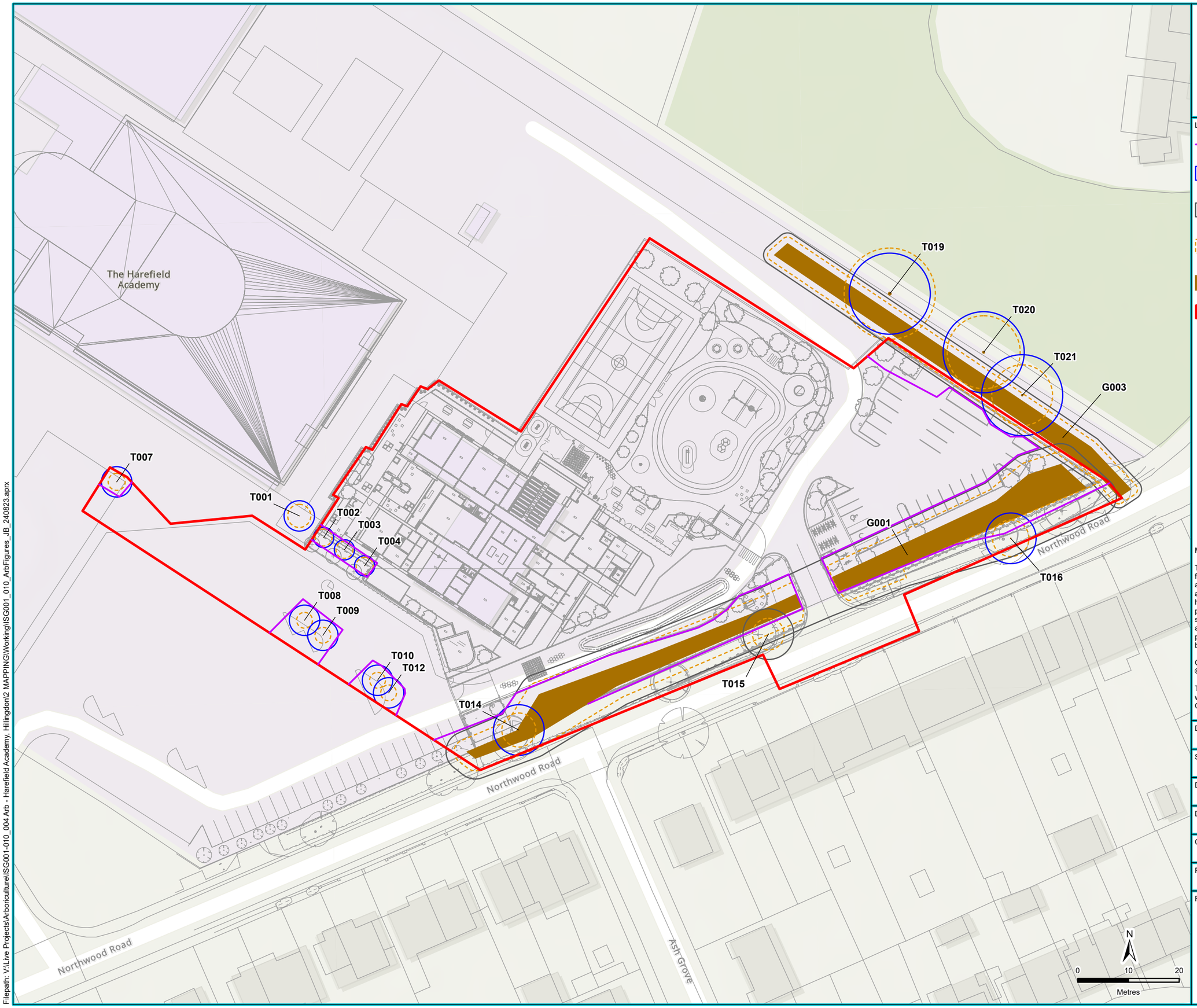
Legend

- Canopy Extent of Category 'B' Tree
- Canopy Extent of Category 'C' Tree
- Root Protection Area of Tree / Group to be Removed
- Root Protection Area of Tree / Group
- Extent of Tree Stems within Groups / Hedges tpo be Removed
- Extent of Tree Stems within Groups / Hedges
- Site Boundary

Map Centre Grid Reference: 505935E 190836N

This map has been drawn at a sufficient level of accuracy to fulfil the requirements of an Arboricultural survey. The level of accuracy depends on both the size of the area involved, GPS accuracy and the detail of topographic mapping. Every effort has been made to create a map that is as accurate as possible. However, this map is not intended to represent a scaled landscape survey so should not be used to pin-point accurate engineering work or as a basis for detailed site planning where an accurate topographical survey has not been provided to help inform the arboricultural survey.

Drawing Ref	ISG001-010/403365/1
Scale at A3	1:700
Drawn: JB	Checked: AS
Date: 20/02/2024	Date: 20/02/2024
Client	ISG Engineering Services Ltd
Figure Number	3
Figure Title	Tree Retention and Removal Plan (TRRP01)



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Legend

- Tree Protection Fencing
- Canopy Extent of Category 'B' Tree
- Canopy Extent of Category 'C' Tree
- Root Protection Area of Tree / Group
- Extent of Tree Stems within Groups / Hedges
- Site Boundary

Map Centre Grid Reference: 505938E 190837N

This map has been drawn at a sufficient level of accuracy to fulfil the requirements of an Arboricultural survey. The level of accuracy depends on both the size of the area involved, GPS accuracy and the detail of topographic mapping. Every effort has been made to create a map that is as accurate as possible. However, this map is not intended to represent a scaled landscape survey so should not be used to pin-point accurate engineering work or as a basis for detailed site planning where an accurate topographical survey has not been provided to help inform the arboricultural survey.

Drawing Ref	ISG001-010/403366/1
Scale at A3	1:700
Drawn: JB	Checked: AS
Date: 20/02/2024	Date: 20/02/2024
Client	ISG Engineering Services Ltd
Figure Number	4
Figure Title	Tree Protection Plan (TPP01)

2. Arboricultural Impact Assessment (AIA)

2.1 Introduction

2.1.1 ISG Engineering Services Ltd is involved in the redevelopment of Harefield Academy, Hillingdon site. Proposals are for the redevelopment and construction of a disused school block and the installation of a new substation. These proposals are hereafter referred to as 'the development'.

2.1.2 The purpose of the AIA is to assess the likely impact of the proposed development on the existing trees on site and to determine which trees will need to be removed to accommodate the proposals and which can be retained.

2.1.3 The protection of retained trees is paramount to their survival during the development process and their consequent long-term contribution to the site. The Root Protection Areas (RPAs) identified in the arboricultural survey and Tree Constraints Plan (TCP) should remain protected throughout the development to avoid potential damage, such as:

- Soil compaction;
- Root severance due to excavation;
- Soil coverage with impermeable material;
- Alterations in ground level;
- Leaks and spillages from stored materials; and
- Vehicle and heavy plant collision.

2.1.4 It was confirmed using London Borough of Hillingdon Council's interactive maps that the site is located within a designated conservation area, but no trees surveyed as part of this report are subject to any Tree Preservation Orders.

2.2 Documents

2.2.1 This assessment has been based on documents listed within Table 1 below.

Table 1: Documents upon which this assessment has been based

Originator	Reference No.	Title
Thomson Environmental Consultants	040923 ISG001-010-001	Arboricultural Survey Report (including Fig 2: Tree Constraints Plan)
Noviun Architects	TVCoo24-WWA-V2-ZZ-DR-L-0106	Overall Site Wide Landscape Plan
Noviun Architects	TVC0024-WWA-V2-ZZ-DR-L-0108	Tree Retention and Removal Plan

2.3 Tree Removals

2.3.1 The trees proposed for removal are located directly within the site and along the edge of the boundary to the north and east need to be removed to facilitate the development.

2.3.2 The trees and groups proposed for removal comprise of 6 Category 'B' tree, 3 Category 'C' trees, and 3 Category 'C' groups of trees. Group G001 will also require partial removal.

2.3.3 A breakdown of the associated categories assigned to the trees proposed for removal can be seen in Table 2 and the species of tree, along with the Category and reason for removal in Table 3.

Table 2: Number of trees to be removed within each retention category.

Removal	Tree Category				Total
	A	B	C	U	
Number of Trees	0	6	3	0	9
Number of Groups	0	0	3	0	3
Total	**0**	**6**	**6**	**0**	**12**

Table 3: Details of trees to be removed

Tree Number	Species	Category	Reason
T005	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	B 1	To facilitate the development.
T006	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	B 1	To facilitate the development.
T011	hornbeam; Carpinus betulus	B1	To facilitate the development.
T013	ash; Fraxinus excelsior	C 1	To facilitate the new substation
T017	crack willow; Salix fragilis	C 1	To facilitate the development.
T018	goat willow; Salix caprea	C 1	To facilitate the development.
T022	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	B 1	To facilitate the development.

Tree Number	Species	Category	Reason
T023	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	B 1	To facilitate the development.
T024	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	B 1	To facilitate the development.
G001	ash; Fraxinus excelsior / sycamore; Acer pseudoplatanus / hawthorn; Crataegus monogyna / hornbeam; Carpinus betulus / pedunculate oak; Quercus robur	C	Partial removal required tofacilitate a new road entrance/exit and development.
G002	hornbeam; Carpinus betulus	C	To facilitate the development.
G004	hornbeam; Carpinus betulus / hazel; Corylus avellana	C	To facilitate the development.

2.3.4 All trees removed to accommodate the development proposals should be replaced at the landscaping stage of the project with a number of trees in line with the council's guidance and policy on new tree planting, to provide long-term canopy cover that is suitable to the land use.

2.4 Trees to be Retained

2.4.1 The following trees and groups of trees are to be retained entirely within the site, equating to 15 individual trees and 2groups of trees. These comprise of 14 Category 'B' trees, 1 Category 'C' trees, 2 Category 'C' groups of trees, G001 is also to be retained as only a small section needs to be removed. Table 4 lists the trees and groups of tees that are to be retained as part of the development proposals.

Table 4: Trees to be retained.

Trees to be retained
T001 T002 T003 T004 T007 T008 T009 T010 T012 T014 T015 T016 T019 T020 T021 G001(in part) G003

2.5 Trees Works

2.5.1 No trees require maintenance works prior to the erection of protective fencing. If future works are identified as part of the development, they should be undertaken in accordance with British Standard BS3998:2010 Recommendations for Tree Work (BS3998:2010).

2.6 Construction Work within RPA

2.6.1 To the North of the site T021 will require a small amount of construction work within its RPA to the South and replaced with new hardstanding, this is for the installation of a new car park. There is already existing hardstanding in place, this removal and excavations will not go beyond the existing sub-base for the new car park within RPAs of tree to be retained will therefore have to be carried out very carefully to avoid significant damaging to structural roots that may be immediately beneath the sub-base.

2.7 New Planting

2.7.1 Trees removed as part of the proposals should be replaced at the landscaping stage of the project, to include, where feasible, the provision for the planting of a mixture of native, as well as ornamental trees, shrubs and hedges suitable to the local and wider landscape.

2.8 Conclusion

2.8.1 The development proposals require the removal of 6 Category 'B' tree, 3 Category 'C' trees, and 3 Category 'C' groups of trees. Group G001 will require a percentage of the groups to be removed. These trees and groups cannot be retained as part of the development and new substation as they are located directly in the line of the proposed development and new road access road.

2.8.2 T001, T002, T003, T004, T007, T008, T009, T010, T012, T014, T015, T016, T019, T020, T021, G001(in part) and G003 can be safely retained adjacent to the proposed works providing that there is a comprehensive arboricultural method statement in place, which specifies regular on-site supervision to guide the works in close proximity to trees.

2.8.3 Overall, the arboricultural impacts associated to the development of the site are considered acceptable and can be mitigated by the protection measures listed within this report, detailed within a comprehensive arboricultural method statement.

2.8.4 Trees removed as part of the proposals should be replaced at the landscaping stage of the project, to include, where feasible, the provision for the planting of a mixture of native, as well as ornamental trees, shrubs and hedges suitable to the local and wider landscape.

3. Arboricultural Method Statement (AMS)

3.1 Introduction

3.1.1 It was confirmed on 04th September 2023 using the online Hillingdon Councils Tree Preservation Order mapping tool that no trees within or immediately adjacent to the site boundaries are covered by Tree Preservation Orders, nor are any located within a Conservation Area. There is a tree preservation order affecting the trees along the northeast boundary of the site.

3.1.2 The purpose of this AMS is to demonstrate how work will be undertaken on the site to avoid an unacceptable impact on, and provide an adequate level of protection for, the retained trees.

3.1.3 This AMS sets out the tree protection required to facilitate the proposed development and should not be read as a definitive engineering or construction statement for this site. Matters relating to construction or engineering details should be referred to a qualified structural engineer for further information and specifications. This AMS is to be used in conjunction with the Tree Protection Plans (TPP01) in Figure 4.

3.2 Documents

3.2.1 This assessment has been based on documents produced by ISG Engineering Services Ltd. The details of these documents can be seen in Table 5. The relationship between the trees and the proposed development are shown on Tree Protection Plan (TPP01), (see Figure 3) which is based on the Tree Constraints Plan (TCP01) and the drawings detailed in Table 5.

Table 5: Documents upon which this assessment has been based

Originator	Reference No.	Title
Thomson Environmental Consultants	040923 ISG001-010-001	Arboricultural Survey Report (including Fig 2: Tree Constraints Plan)
Noviun Architects	TVCoo24-WWA-V2-ZZ-DR-L-0106	Overall Site Wide Landscape Plan
Noviun Architects	TVC0024-WWA-V2-ZZ-DR-L-0108	Tree Retention and Removal Plan

3.3 Arboricultural Issues

3.3.1 All drainage, service installations and ground modelling works are to be undertaken outside the Construction Exclusion Zone (CEZ). This will be created by the temporary protective fencing (see Figure 4).

3.3.2 There will be a requirement to remove existing hard standing from within an RPA.

3.4 Supervision

3.4.1 Before construction commences, a suitably qualified and experienced arboriculturist shall be appointed to oversee key stages of the construction work that will affect the tree, as laid out in Table 3.

3.4.2 The appointed project arboriculturist shall hold a pre-commencement meeting with the site manager, relevant construction staff and Local Authority Tree Officer (if appropriate) to explain and agree the contents of this AMS to ensure its correct implementation.

3.4.3 This meeting will detail the site procedures and rules that relate to all retained and protected trees on site, as well as explaining the content of the agreed AMS. Construction staff shall be required to sign and confirm that they fully understand their responsibilities with respect to trees and will abide by these requirements. The Site Manager shall retain copies of the site induction statements for future reference where necessary.

3.4.4 Tree protection fencing will be erected in the locations shown on Tree Protection Plan to protect the canopies and root protection areas of trees adjacent to the working areas. The project arboriculturist should check on site that it is in the correct location and is in line with the specification attached to this report prior to commencement of works within any specific location.

3.4.5 Monthly visits should be undertaken by a qualified arboriculturist to ensure the retained trees have not been damaged by construction works and that installed tree protection measures remain intact and are positioned in the intended locations.

3.4.6 After each site visit by the arboriculturist, a report of the visit shall be submitted to the client detailing the result of the visit. Where necessary, this will be supported with photographic evidence highlighting unacceptable practices as well as good site management and tree protection measures.

3.4.7 In the event that there is a non-approved incursion into a construction exclusion zone, works on site should be temporarily suspended and the lead arboriculturist consulted. A site visit may be necessary to inspect the affected tree and a report of the incident, including any remedial actions taken, sent to London Borough of Hillingdon Council's Tree Officer.

3.4.8 Any changes to the nature and sequence of works specified in this AMS regarding the retained trees should be agreed with an arboricultural consultant at least 48 hours before their realisation.

3.5 List of Contacts

3.5.1 The list of contacts within Table 6 should be used as reference if any deviations from, or issues with, any part of this AMS arise.

Table 6 List of contact details for relevant parties

Name	Job Title	Organisation	Contact Details
James Baker	Arboricultural Consultant	Thomson Environmental Consultants	james.baker@thomsonec.com
			07432 051067
Rebecca Allen	Design Manager	ISG	Rebecca.Allen@isgltd.com
			07977 486162

3.6 Tree Removals

3.6.1 In the Arboricultural Impact Assessment, 12 trees require removal (T005, T006, T011, T013, T017, T018, T022, T023, and T024) and G001 requires partial removal and full removal of G002, and G004 under the current plans.

3.6.2 Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes should be parked or driven beneath the crowns of any retained trees located within current soft landscape, to prevent subsequent soil compaction and root death. All arisings are to be removed and the site is to be left in as tidy and orderly manner as possible.

3.7 Protective Fencing

3.7.1 Temporary fencing will be erected as indicated on the Tree Protection Plan (TPP01) in Figure 3. The specification for this fencing will be in accordance with the recommendations given in BS5837:2012 '*Trees in Relation to Design, Demolition and Construction – Recommendations*' (BSI). It will comprise 2.0m high mesh fencing (Heras type panels are a simple, readily available solution) attached to a scaffold framework. Support scaffolds will be attached to the scaffold framework as necessary at an angle of 45 degrees on the side of the trees and anchored by further scaffold poles carefully firmed into the ground. The vertical scaffold tubes will be spaced at a maximum interval of 3m.

3.7.2 A diagram illustrating an example of the protective fencing can be seen in Appendix 3.

3.7.3 Clear signs will be attached at 4m intervals along the fencing stating 'Tree Protection Area – Keep Out'. These should be outward facing and weather protected and maintained for the duration of the works. A suitable sign can be seen in Appendix 5.

3.7.4 The area protected by the fence shall be known as the Construction Exclusion Zone (CEZ).

3.7.5 The following principles must be maintained within the CEZ:

- Existing ground levels shall not be altered;
- No excavation shall occur to avoid root severance;
- No plant or vehicles shall enter the CEZ;
- Impermeable surfacing shall not be laid down over soil ('capping');
- No materials, fuels or chemicals shall be stored within any of these areas;
- No fires to be lit where flames may reach within 5m of the CEZ;
- No structures or fixtures of any kind shall be fastened in any way to the trunks of the retained trees;
- No drainage or irrigation pipes shall be installed within the RPAs of the retained trees; and
- Any unwanted vegetation shall be removed by hand.

3.7.6 The fencing shall remain in place until soft landscape operations require its full or partial removal. No other construction activity will take place within those areas formerly protected by the fence.

3.8 Ground Protection

3.8.1 There will be no requirement to install ground protection.

3.9 Construction within RPA

3.9.1 An area of hard-standing within the RPAs of T021 requires removal as part of the development. To prevent damage to any underlying roots this will be removed by hand where possible. Machinery can be used if necessary to break up and remove larger or more substantial sections

of the surface, however the machinery should be footed outside of the RPA or on sections of the surface not yet removed.

3.9.2 In the case of T021 the existing hardstanding can be broken up and removed using a combination of hand-held power tools and mini excavators to a maximum depth of the existing sub-base.

3.9.3 All machinery and equipment is to be sited within the footprint of the road and never within the areas demarcated by pedestrian barriers, which in this instance act as the tree protection fencing.

3.9.4 If roots are to be left exposed overnight, they should be wrapped in hessian. The project arboriculturist should be consulted as to whether wetting the wrapping is appropriate to prevent roots drying out, which will depend on the temperature.

3.9.5 Any new sub-base which is required should consist of a suitable porous material to allow water and oxygen to the trees' root systems. The paving shall be reinstated at existing levels and be made from a porous or semi-porous material which too allows the root systems access to air and water.

3.10 Services and Utilities

3.10.1 There is a requirement to remove T013 to facilitate a new substation for the development.

3.10.2 All underground services and drainage routes shall be located so that no excavations are required within the RPAs of the retained trees.

3.10.3 In the event that an incursion into an RPA is unavoidable, the installation shall comply with the methods and guidelines detailed in *Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees* NJUG 4 (2007). If this does occur, then an arboricultural consultant shall be consulted before any works commence within the RPA to agree the methodology for the excavation.

3.11 Landscaping

3.11.1 The plans provided do not show any landscaping with the RPAs of the retained trees. However, if any is to be undertaken post-construction the principles of the CEZ (as detailed in Section 6.7) should still be adhered to with particular reference to level changes, root severance and 'capping' with impermeable materials. If impermeable surfaces are to be laid within the RPA of any of the retained trees then they should not cover greater than 20% of the area.

3.12 Sequence of Works

3.12.1 A logical sequence of events, as well as whether arboricultural site supervision will be required, is shown in Table 7 below.

Table 7: Sequence of works and Arboricultural Site Supervision.

Stage	Event	Arboricultural Supervision / site visit required
Stage 1	Carry out tree removals in accordance with this report.	No
Stage 2	Install protective fencing in the position shown on Figure 4, to the specification given in Section 3.7	Yes
Stage 3	Site visit by arboriculturist to sign off the installed fencing and ground protection. Further regular visits will be undertaken by the arboriculturist.	Yes
Stage 4	Complete main construction phase of development.	No
Stage 5	Complete all the landscaping.	No
Stage 6	Removal of all machinery from site.	No
Stage 7	Dismantle protective fencing by hand and remove from site.	No
Stage 8	Arboricultural assessment of retained trees on site to confirm their health post development.	Yes

4. Bibliography

4.1.1 British Standards Institution (2012) BS5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*. BSI, London.

4.1.2 British Standards Institution (2010) BS 3998:2010 *Recommendations for Tree Work.* BSI, London.

4.1.3 Plant Health Service (2012) *Biosecurity Guidance* Forestry Commission, Edinburgh

4.1.4 Johnson, O. & More, D. (2004) *Collins Tree Guide*. London: HarperCollins.

4.1.5 Lonsdale, D. (1990) *Principles of Tree Hazard Assessment and Management*. The Stationery Office, London.

4.1.6 Matheny, N. & Clark, J.R. (1998) *Trees and Development.* ISA, Champaign, IL.

4.1.7 Mattheck, C. & Breloer, H. (1994) *The Body Language of Trees.* The Stationery Office, London.

4.1.8 National Joint Utilities Group (NJUG) (2007) NJUG Volume 4: *Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees*. NJUG, London.

4.1.9 National Tree Safety Group (2011) *Common Sense Risk Management of Trees* Forestry Commission, Edinburgh

4.1.10 Patch, D. & Holding, B. (2007) Arboricultural Practice Note 12: *Through the Trees to Development.* London: AAIS.

4.1.11 Robertson, J, Jackson, N & Smith, M (2006) *Tree Roots in the Built Environment.* The Stationery Office, London.

4.1.12 Rose, B. (2020) Guidance Note 12*: The use of cellular confinement systems near trees. A guide to good practice*. The Arboricultural Association.

Appendix 1 - Tree Schedule

Tree/ Group No	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution (years)	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m2)	RPA radius (m)
T001	hornbeam; Carpinus betulus	8	190.00	3	3	3	3	0 N	0	Young	20+	Good	Good	Dense canopy, adjacent to a car park	None	B 1	16.32	2.28
T002	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	8	140.00	2	2	2	2	0 W	0	Young	20+	Good	Good	Well-formed tree, adjacent to a car park	None	B 1	8.86	1.68
T003	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	8	140.00	2	2	2	2	0 W	0	Young	20+	Good	Good	Well-formed tree, adjacent to a car park	None	B 1	8.86	1.68
T004	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	8	140.00	2	2	2	2	0 W	0	Young	20+	Good	Good	Well-formed tree, adjacent to a car park	None	B 1	8.86	1.68
T005	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	6	140.00	2	2	2	2	0 W	0	Young	20+	Good	Good	Well-formed tree, adjacent to a car park	None	B 1	8.86	1.68
T006	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	8	140.00	2	2	2	2	0 W	0	Young	20+	Good	Good	Well-formed tree, adjacent to a car park	None	B 1	8.86	1.68
T007	manna ash; Fraxinus ornus	7	140.00	3	3	3	3	2 S	2	Young	20+	Good	Good	Well-formed tree	None	B 1	8.86	1.68
T008	field maple; Acer campestre	5	130.00	3	3	3	3	2 S	2	Young	20+	Good	Good	Well-formed car park tree	None	B 1	7.64	1.56

T009	field maple; Acer campestre	5	130.00	3	3	3	3	2 S	2	Young	20+	Good	Good	Well-formed car park tree	None	B 1	7.64	1.56
T010	field maple; Acer campestre	5	130.00	3	3	3	3	2 S	2	Young	20+	Good	Good	Well-formed car park tree	None	B 1	7.64	1.56
T011	hornbeam; Carpinus betulus	7	210.00	4	4	4	4	0 E	0	Semi-mature	20+	Good	Good	Very low drooping crown, adjacent to a footpath	None	B 1	19.94	2.52
T012	field maple; Acer campestre	5	130.00	3	3	3	3	2 S	2	Young	20+	Good	Good	Well-formed car park tree	None	B 1	7.64	1.56
T013	ash; Fraxinus excelsior	9	320.00	6	6	6	6	2 S	2	Early mature	10+	Fair	Fair	Off site tree unable to fully inspect, canopy is showing signs of Ash die back	None	C 1	46.31	3.84
T014	pedunculate oak; Quercus robur	9	280.00	5	5	5	5	2 S	2	Early mature	20+	Good	Good	Off site tree unable to fully inspect	None	B 1	35.45	3.36
T015	ash; Fraxinus excelsior	10	260.00	5	5	5	5	2 S	2	Early mature	10+	Poor	Good	Off site tree unable to fully inspect, showing signs of ash die back	None	C 1	30.57	3.12
T016	pedunculate oak; Quercus robur	11	300.00	5	5	5	5	2 W	2	Early mature	20+	Fair	Fair	Off site tree unable to fully inspect	None	B 1	40.70	3.60
T017	crack willow; Salix fragilis	7	210.00	3	3	3	3	1 W	1	Early mature	10+	Fair	Fair	Growing adjacent to the boundary fence	None	C 1	19.94	2.52

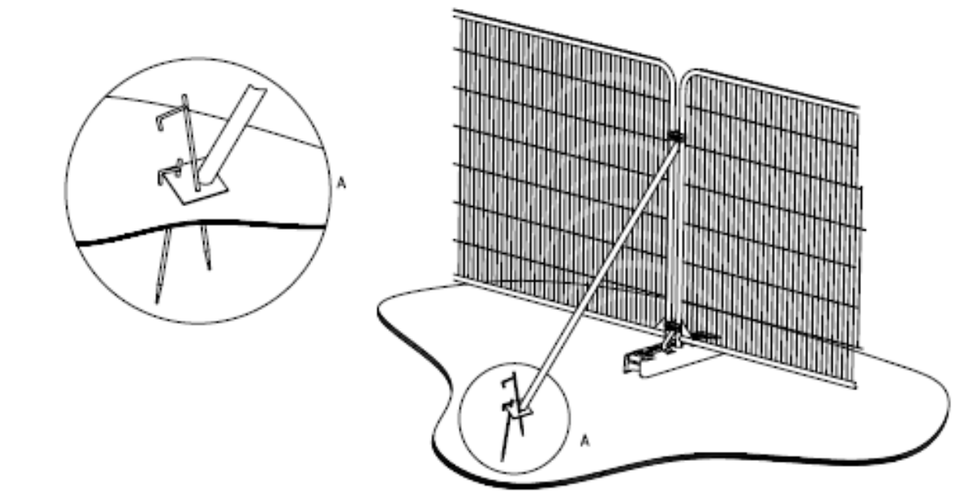
T018	goat willow; Salix caprea	7	220.00	3	3	3	3	0 S	0	Early mature	10+	Fair	Fair	Growing adjacent to the boundary fence	None	C 1	21.89	2.64
T019	pedunculate oak; Quercus robur	21	750.00	8	8	8	8	3 S	3	Over-mature	20+	Good	Good	Off-site tree unable to fully inspect	None	B 1	254.37	9.00
T020	pedunculate oak; Quercus robur	21	600.00	8	8	8	8	3 S	3	Mature	20+	Good	Good	Off-site tree unable to fully inspect	None	B 1	162.79	7.20
T021	pedunculate oak; Quercus robur	19	500.00	8	8	8	8	3 S	3	Mature	20+	Good	Good	Off-site tree unable to fully inspect	None	B 1	113.05	6.00
T022	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	7	120.00	1	1	1	1	2 E	2	Young	20+	Good	Good	Set within a court yard, recently planted tree	None	B 1	6.51	1.44
T023	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	7	120.00	1	1	1	1	2 E	2	Young	20+	Good	Good	Set within a court yard, recently planted tree Set within a court yar, recently planted tree	None	B 1	6.51	1.44
T024	fastigiate pedunculate oak; Quercus robur 'Fastigiata'	7	120.00	1	1	1	1	2 E	2	Young	20+	Good	Good	Set within a court yard, recently planted tree	None	B 1	6.51	1.44
G001	ash; Fraxinus excelsior / sycamore; Acer pseudoplatanus / hawthorn; Crataegus monogyna / hornbeam; Carpinus betulus / pedunculate oak; Quercus robur	9	200	4	4	4	4	-		Semi-mature	20+	Good	Good	Mixed species group, adjacent to a footpath and with a boundary fence running through the middle of it.	None	C	-	2.40

G002	hornbeam; Carpinus betulus	1	75	1	1	1	1	-	0	Early mature	20+	Good	Good	Previously maintained hedge	None	C	-	0.90
G002	hornbeam; Carpinus betulus	1	75	1	1	1	1	-	0	Early mature	20+	Good	Good	Previously maintained hedge	None	C	-	0.90
G003	ash; Fraxinus excelsior / common dogwood; Cornus sanguinea / oak species; Quercus sp. / hawthorn; Crataegus monogyna / blackthorn; Prunus spinosa	5	100	2	2	2	2	-	1	Early mature	20+	Good	Good	Mixed species group, unable to fully inspect due to being off site trees	None	C	-	1.20
G004	hornbeam; Carpinus betulus / hazel; Corylus avellana	3	75	2	2	2	2	-	0	Early mature	20+	Good	Good	Gorup set within a court yard	None	C	-	0.90

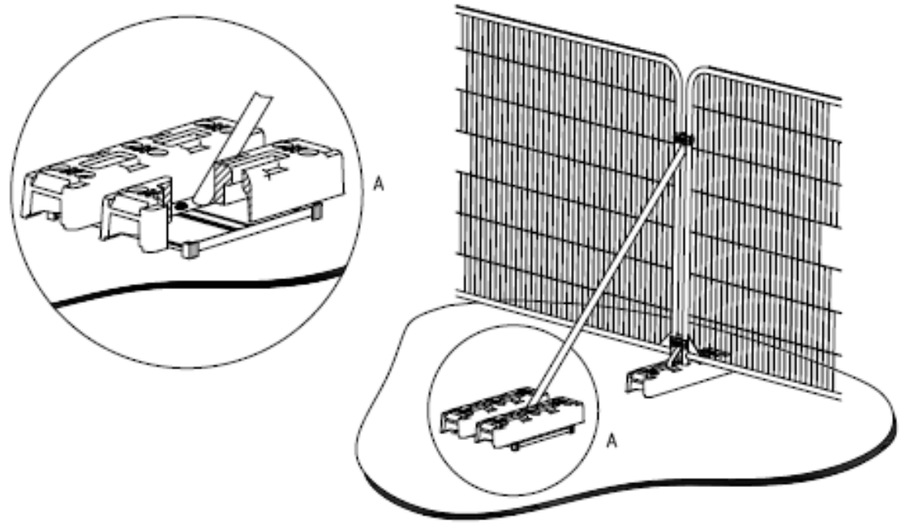
Appendix 2 – Table of Quality Assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have serious, irremediable, structural defects, 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 • 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 NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve			DARK RED
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
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 of formal or semi-formal arboricultural features (e.g. the dominant and/or principle 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
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 with material conservation or other cultural value	MID BLUE
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 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 landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	GREY

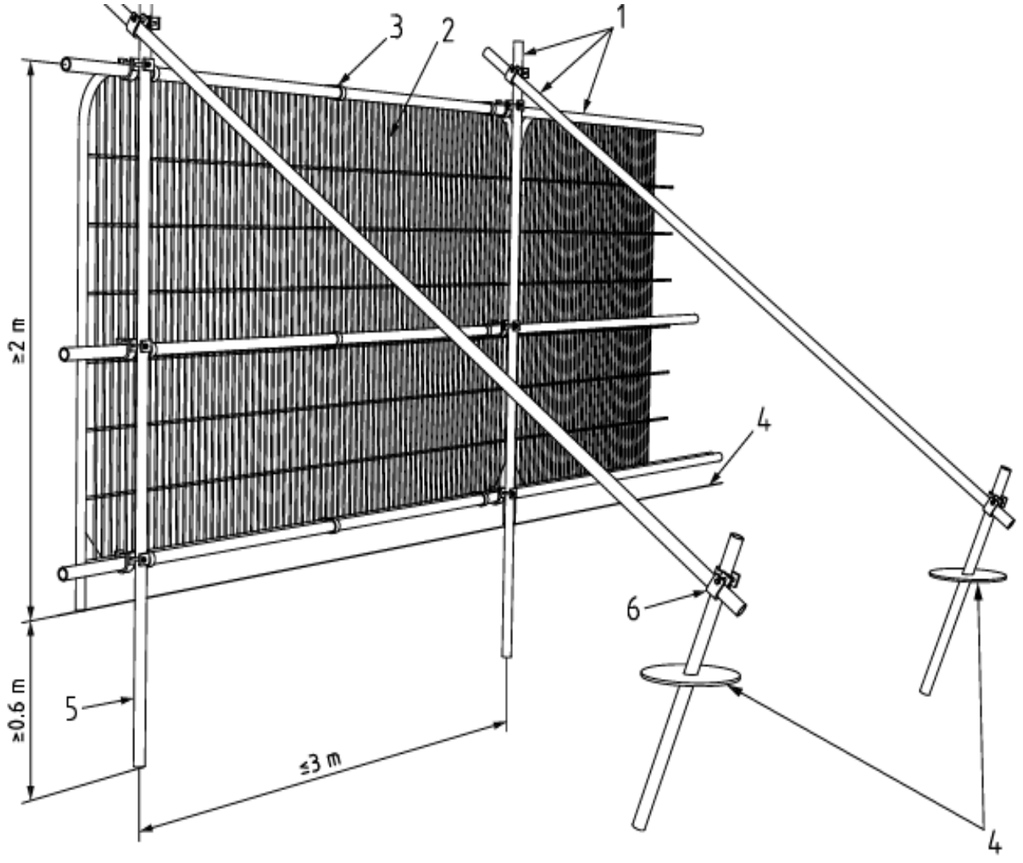
Appendix 3 – Example of Protective Fencing



a) Stabilizer strut with base plate secured with ground pins



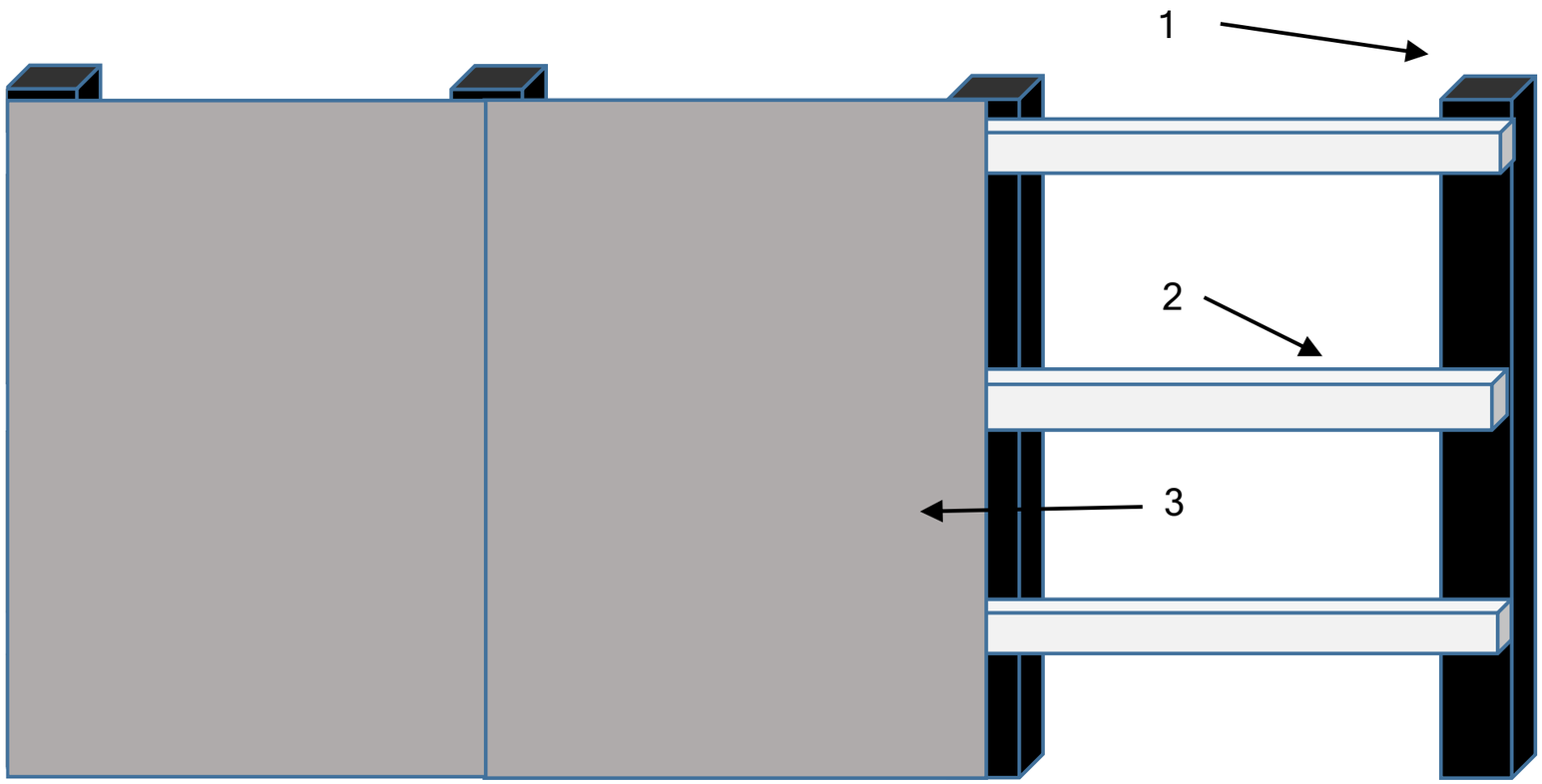
b) Stabilizer strut mounted on block tray



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Appendix 4 - Example of Protective Fencing



1. 100mm x 100mm timber posts at 1.2m centres

2. Three 100mm x 50mm timber rails

3. 12mm WBP Virola hardwood through plywood framed panels

Appendix 5 – Tree Protection Fencing Notice