
YEW TREE AND GARDENS

Client: Stratus 9 Consulting Ltd
– Burnage Academy For Boys,
Burnage Lane Manchester M19 1ER.

ARBORICULTURAL IMPACT ASSESSMENT FOR CRICKET PITCH

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ARBORICULTURAL IMPACT ASSESSMENT

1. SITE

A. SITE DESCRIPTION

1. The proposed development site is comprised of areas of maintained grounds adjacent to existing outdoor sports facility areas at Burnage Academy for Boys, Burnage Lane, Manchester.
2. The development area is as indicated in Appendix 5: Tree Constraints Plan and tree stock is as detailed within Appendix 1: Tree Schedule and Appendix 2: Tree Location Plan.
3. The survey area consists of the western edge of the grass sports pitches and areas of landscaping surrounding internal vehicle and pedestrian access routes. The survey site is bounded by further areas of school grounds to all sides
4. Tree stock within the survey boundaries is comprised of a maintained hedge, a linear group of Alder, a single young Oak and groups of maintained shrubs.

B. SURVEY DETAILS

1. The site was surveyed on 16/05/2024, tree heights were estimated via use of clinometer (Suunto PM-5), measurements of DBH taken at 1.5m height and crown spread was taken by ground measurements. The position of tree references within the survey area were estimated on site and added to the OS based site plan supplied to ourselves. (Note we are not land surveyors and all tree locations are estimated via physical reference points on site). All images were taken at the date with Samsung A10. Sun positions were estimated on site via Sun Surveyor software. Weather conditions were bright with full sun and light to no winds.
2. All surveying of tree stock on the site was carried out visually from the ground only. Where ivy cover was encountered on trees then only limited visual checking of structure and potential defects was possible.
3. At the time of surveying all trees were recorded on standard tree record sheets, see Appendix 1: Tree Schedule. Trees were surveyed throughout the entire site, detailed individual details were recorded for all significant trees within the existing site. Where larger numbers of smaller trees were encountered in the survey area these are included as a Group record which includes the approximate height range and maximum Diameter at Breast Height (DBH) of trees within the group, these groups are referred to by group i.e. Group 2 (G2).
4. The surveyed trees are categorized by the standard retention categories as defined in BS5837:2012. Such retention categories seek to inform the design process of trees which may be worthy of consideration for inclusion within the proposed development. All work recommendations relate to trees within the context of the current site layout and usage.
5. **Note:** the report and schedule recommendations form components of a development survey and are not intended to be used as a specific tree hazard assessment
6. Trees requiring removal to facilitate the proposed development, or which are unsuitable for retention are annotated in red on the Tree Constraints Plan and may be further identified in the work recommendation section of the Tree Schedule.

2. PROPOSED DEVELOPMENT

A. PROPOSED DEVELOPMENT

1. The proposed development layout is for the construction of an all-weather cricket pitch as illustrated in Appendix 5: Tree Constraints Plan.

3. TREE PRESERVATION ORDERS AND CONSERVATION AREAS

A. SITE DESCRIPTION

1. The site is not located within a Conservation Area.
2. We have undertaken an online check for Tree Preservation Orders (TPO) via published Manchester open data mapping. This does not show the presence of any TPO within the site.
<https://www.arcgis.com/apps/mapviewer/index.html?layers=234d49a3783b47e49d7016747654e988>.
3. The status of all trees within and adjacent to the site boundaries should be verified to the undertaking of tree works or removals.
4. It should be noted that trees located outside of maintained residential grounds and not covered by an active TPO or conservation area are subject to the standard Felling License constraints imposed by the Forestry Commission. These regulations restrict the volume of timber which may be removed in a calendar quarter without a felling licence to 5 cubic metres. The non-residential nature of the site would place it under these regulations.
5. Hedgerow regulations cover the protection of certain established field boundary hedges. No field boundary hedges are present.

4. IMPACT OF DEVELOPMENT ON TREE STOCK

A. CURRENT TREE STOCK

1. The current tree stock within the survey boundaries as defined by those trees within the area of the proposed development is detailed in Appendix 1 and briefly outlined as follows.
2. All tree and hedge stock within the overall school grounds is of relatively young age. This reflects the date of the construction of the school and associated landscaping with an absence of significant established mature tree stock within the central areas of the site.
3. H1 is a maintained Hornbeam hedge which forms a demarcation between the grass pitch area and a surfaced footpath.
4. G1 is a linear grouping of Alder which have been planted along the line of H1. They are in mixed condition with the majority having good vigour but two trees in the central section having reduced and low vigour and a single tree in the northern section being standing deadwood. Approximately 9 trees are within the proximity of the proposed development area.
5. T1 is a young Oak planted at the eastern edge of a maintained shrub group G2. Group G2 is a mixture of shrub and tree species which are all clipped to low forms.
6. Group G3 is a scattered linear group of clipped shrubs / hedge species. It is located in an unsurfaced strip between a vehicle access route and an all-weather pitch.
7. No other trees or hedges are located within the sphere of the development. Further trees and shrubs are present to the south of the existing all-weather pitch, they are outside of the proposed development area and over 10m away from it.

4. IMPACT OF DEVELOPMENT ON TREE STOCK (CONT.)

B. PROPOSED DEVELOPMENT

1. Trees which are within the zone of potential impacts from the proposed development illustrated in Appendix 5: Tree Constraints Plan are detailed as follows.
2. The proposed cricket pitch would require the removal of a number of trees, section of hedge and shrub group.
3. The required removals do not involve any mature individual trees or groups of trees which make a significant landscape contribution outside the site boundaries
4. Approximately 22m of hedge H1, 3 trees from G1 and the shrub groups G2 and G3 will require removal. The age of T1 may allow for its relocation within the site.
5. As noted above and within Appendix 1, the age of the surveyed trees limits the impact of their removal. Of the 3 Alder in G1 which require removal, 2 are in declining condition with limited remaining lifespans in the existing site.
6. The remainder of H1 and tree group G1, can be retained and protected via rigid protective fencing.
7. Mitigation for the limited tree removals could be achieved through replacement planting within the site

5. SUGGESTED MITIGATION MEASURES

A. GUIDELINES

1. Guidance for the protection and retention of trees within the site.
2. Erection of protective fencing as indicated in Appendix 5: Tree Constraints Plan.
3. No material storage should take place in these areas.
4. No mixing of cement-based or other building materials should take place within the root protection area, no storage of fuels should take place within this area.
5. The tree protection must remain in place until work is completed and there is no risk to the RPAs
6. Once construction has been completed and the landscaping phase is complete the protective fencing may be removed.
7. No specific site guidance.

B. PROTECTIVE FENCING

1. Once erected all protective fencing will be regarded as sacrosanct and will remain in place until the completion of the construction phase. It shall not be removed, relocated or breached at any time without consultation with the project arboriculturalist.
2. Protective fencing will be constructed of robust barriers fit for the purpose of excluding construction traffic from root protection areas. Details of appropriate fencing types are included in Appendix 6.
3. Signs will be affixed to every third panel stating, 'Tree Protection Area Keep Out'. See Appendix 6 for an example of signage.
4. All fencing will be securely affixed to avoid movement of fencing during the construction phase.
5. For the sections marked in solid orange on Appendix 5 fences will be constructed of site fencing of 'Heras' type which must be securely braced with additional measures to prevent movement of the fence during construction.
6. Indicative positions for protective fencing are indicated in orange on Appendix 5: Tree Constraints Plan.

5. SUGGESTED MITIGATION MEASURES (CONTINUED)

C. GENERAL PRINCIPLES TO AVOID DAMAGE TO TREES.

1. Protective fencing installed to prevent mechanical damage to trees adjacent to the development.
2. An indicative list of recommended practices during construction phase is listed below:
3. Once installed tree protection must remain in place and be observed at all times.
4. No fires within 10m of the crown of any retained trees.
5. Soil levels in rooting areas to be retained with minimal level changes, no greater increases than 300mm from existing levels.
6. No cement mixing/washout to take place within 15m of any retained trees.
7. No chemicals, bitumen etc. to be stored within 10m of any retained trees.
8. Any spillage of fuel, chemicals or contaminated water occurring within 2m of the root protection areas to be reported to project supervisor.
9. Underground services have been indicated to us at this time, appropriate sub surface or hand trenching methods must be used and guidance sought prior to any works being undertaken. See BS3857:2012.

D. MITIGATION PLANTING.

A specific landscaping plan has been produced to accompany the proposed development.

There is opportunity for tree and hedge planting within the site, this would provide mitigation for the limited tree removals required in the development and an overall increase in tree and hedge stock.

6. CONCLUSION

1. The proposed development will require the removal of a number of younger aged trees (G1), a section of maintained hedge (H1) and two groups of shrubs (G2, G3).
2. The removal of these trees, hedge and shrubs would not significantly impact upon the structure of the wider landscape. None of the required removals are in the mature age class.
3. The remainder of H1 and G1 can be retained and protected within the development.
4. The age and size of T1 may allow it to be relocated / transplanted within the site.
5. There is an opportunity within the proposed development to undertake additional trees / shrub planting, this would mitigate the removals required in the development.

7. RECOMMENDATIONS

It is recommended that

The management of the development reflects the guidance contained within this report both for the management of trees for retention and the protection of same during the proposed development phase and that due consideration is given to the position of any development in relation to retained trees and the removal of trees which are unsuitable for long term retention from the site prior to any development.

Type	Name	Age	DBH	Height	1stB	N	E	S	W	Cond	Life Exp	Comments	Recommendations / development	RPR m	RPA m ²	Category
H1	Carpinus betulus (Hornbeam)	EM	60	1.75	0	0.5	0.5	0.5	0.5	Good	20+	Maintained hedge	Section will require removal in development (circa 22m) - Retain remainder with protective fence - see AIA	0.72	1.63	C2
G1	Alnus cordata (Italian Alder)	SM	225	8	3	3	3	3	3	Mix	10+	Linear group of Alder within H1. 9 trees within proximity of development rea. 1 tree at N edge is standing deadwood, 1 tree has reduced vigour and 1 tree has low vigour. DBH ranges from 200mm 250mm	3 trees will require removal in development of which 2 have reduced / low vigour. Retain remainder with protective fence - see AIA	2.7	22.91	C2
T1	Quercus petraea (Sessile Oak)	Y	105	6	2	1.5	1.5	1.5	1.5	Fair	10+	Young tree at edge of planting group	Will require removal or transplanting in development	1.26	4.99	C2
G2	Mixed shrub group,Fagus sylvatica (Beech),Salix caprea (Goat Willow),Quercus petraea (Sessile Oak)	Y	80	2	0.5	0.5	0.5	0.5	0.5	Fair	10+	Mix of shrubs and young trees that have been clipped as shrubs	Will require removal in development	0.96	2.9	C2
G3	Fagus sylvatica (Beech),Mixed shrub group	Y	80	1.5	0.5	0.5	0.5	0.5	0.5	Fair	10+	Clipped shrubs in sections along edge of access	Will require removal in development	0.96	2.9	C2

Table 1 Cascade chart for tree 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 realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	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 formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
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	See Table 2
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	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

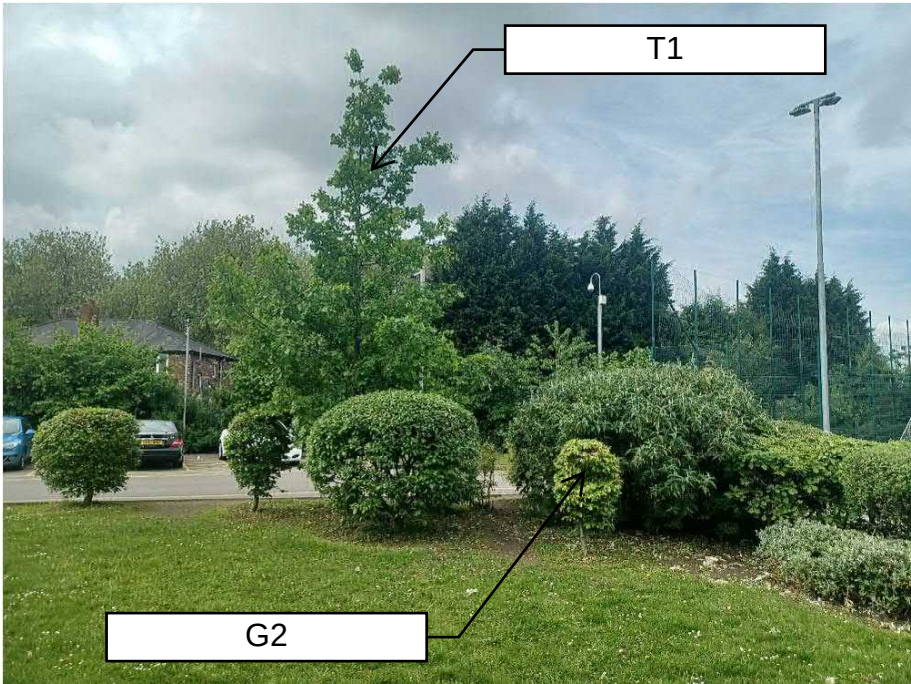
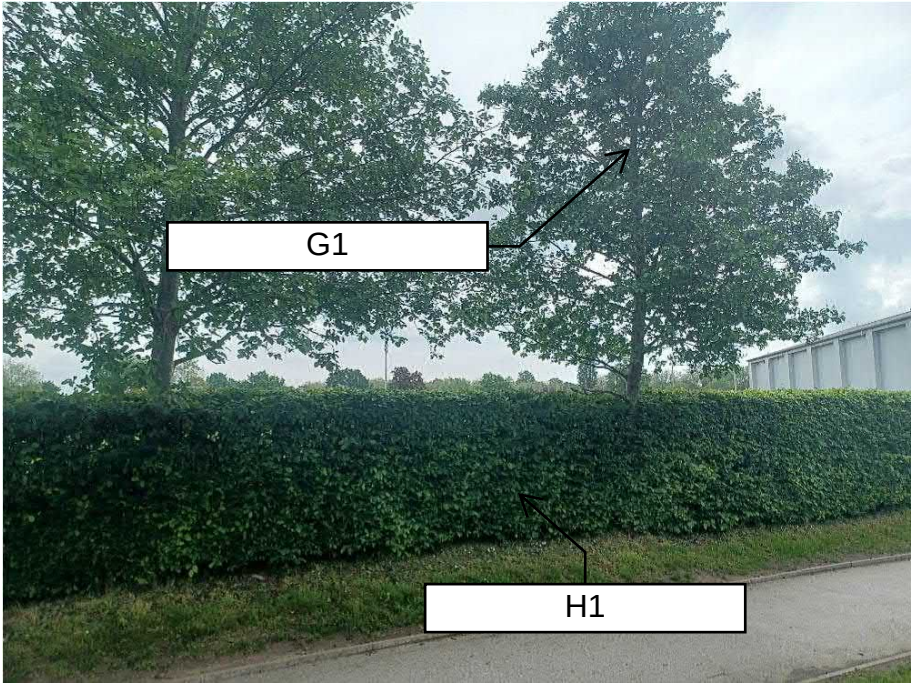


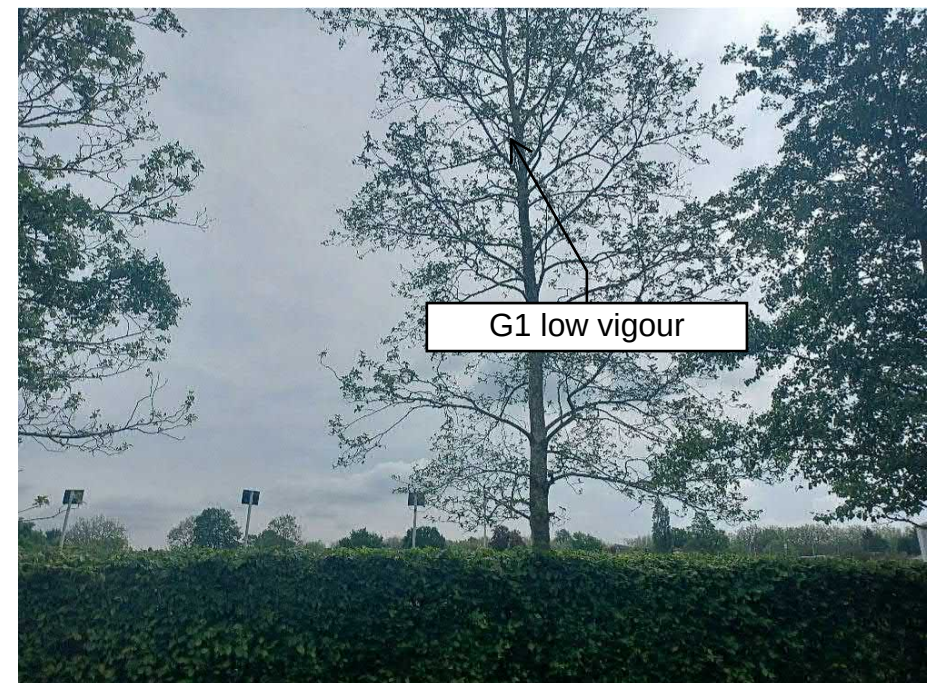
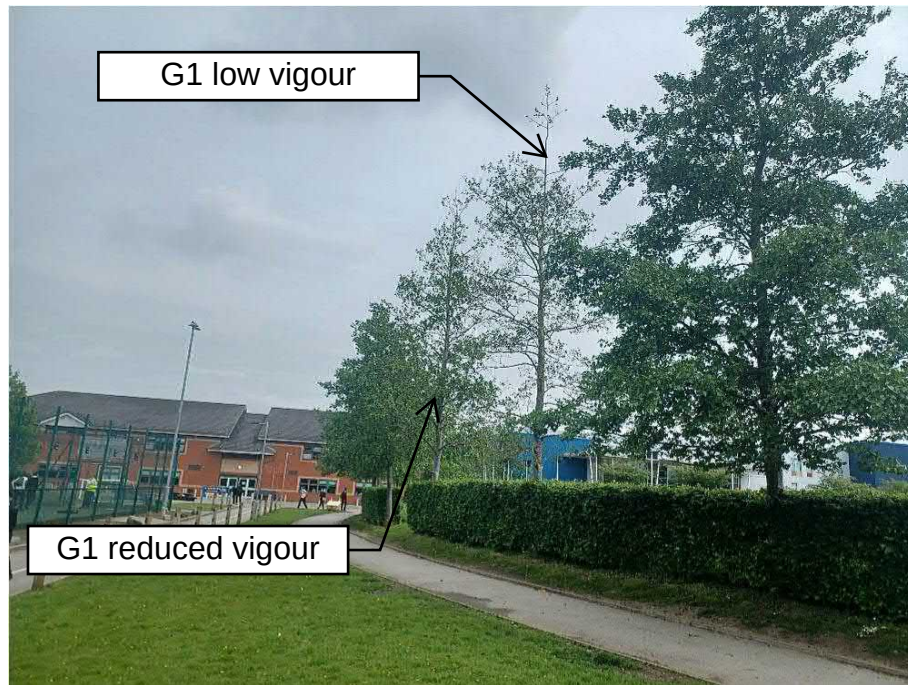


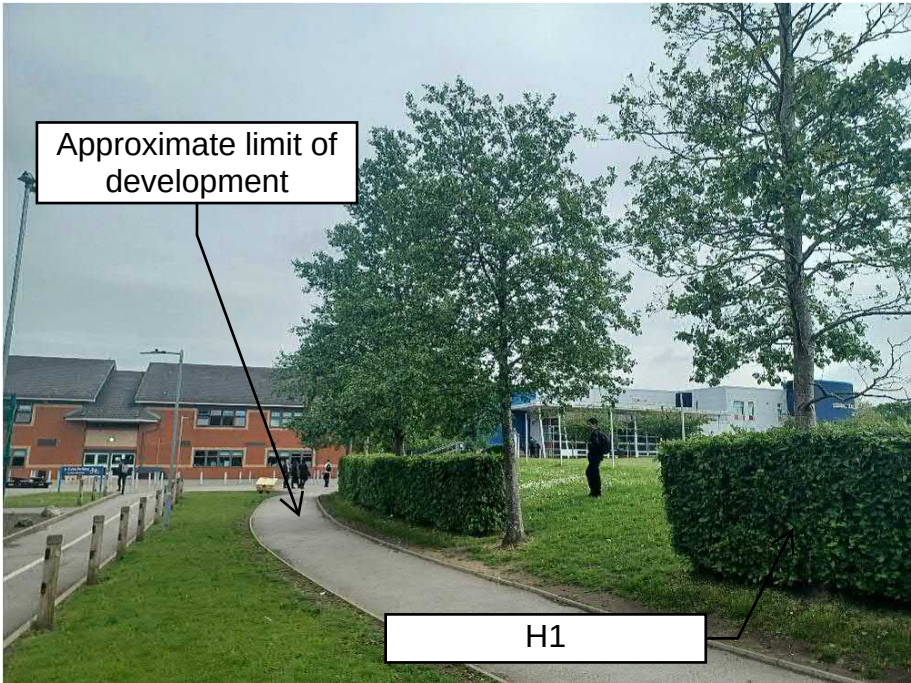
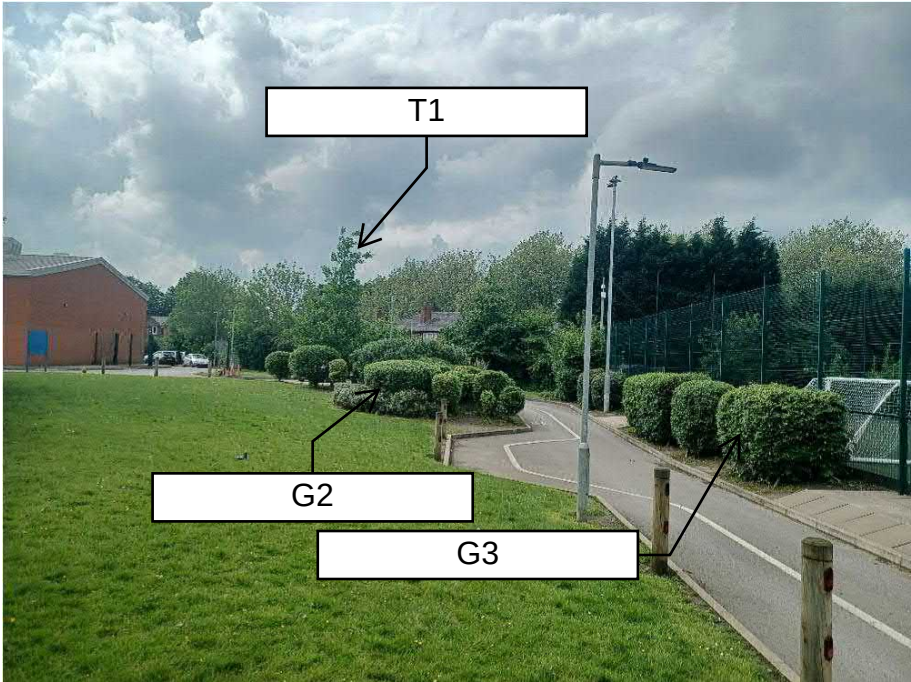
Tree Location Plan



Tree Locations by retention category G1-C2 G2-C2 G3-C2 H1-C2 G4-U Root Protection Area (radius) RPA Category A RPA Category B RPA Category C Category U tree unsuitable for retention Restricted Root Protection Area (polygon) Surveyed Canopy Extents	Project Title: Burnage Academy Date of Survey: 16/05/2024 Surveyor: A. Wood Date File Created: 23/05/2024 1:500 Yew Tree & Garden Yew Tree House Hale Milnthorpe Cumbria LA7 7BJ 015395 63527 07813897631 info@yewtreegardens.co.uk www.yewtreegardens.co.uk Note: RPA only indicated for significant trees. Small garden trees and juvenile specimens may not be indicated Retention Categories: As defined in BS5837: 2012 RPA: Plotted from individual RPA sheets. Where restricted rooting conditions are present RPA is also plotted as an area polygon
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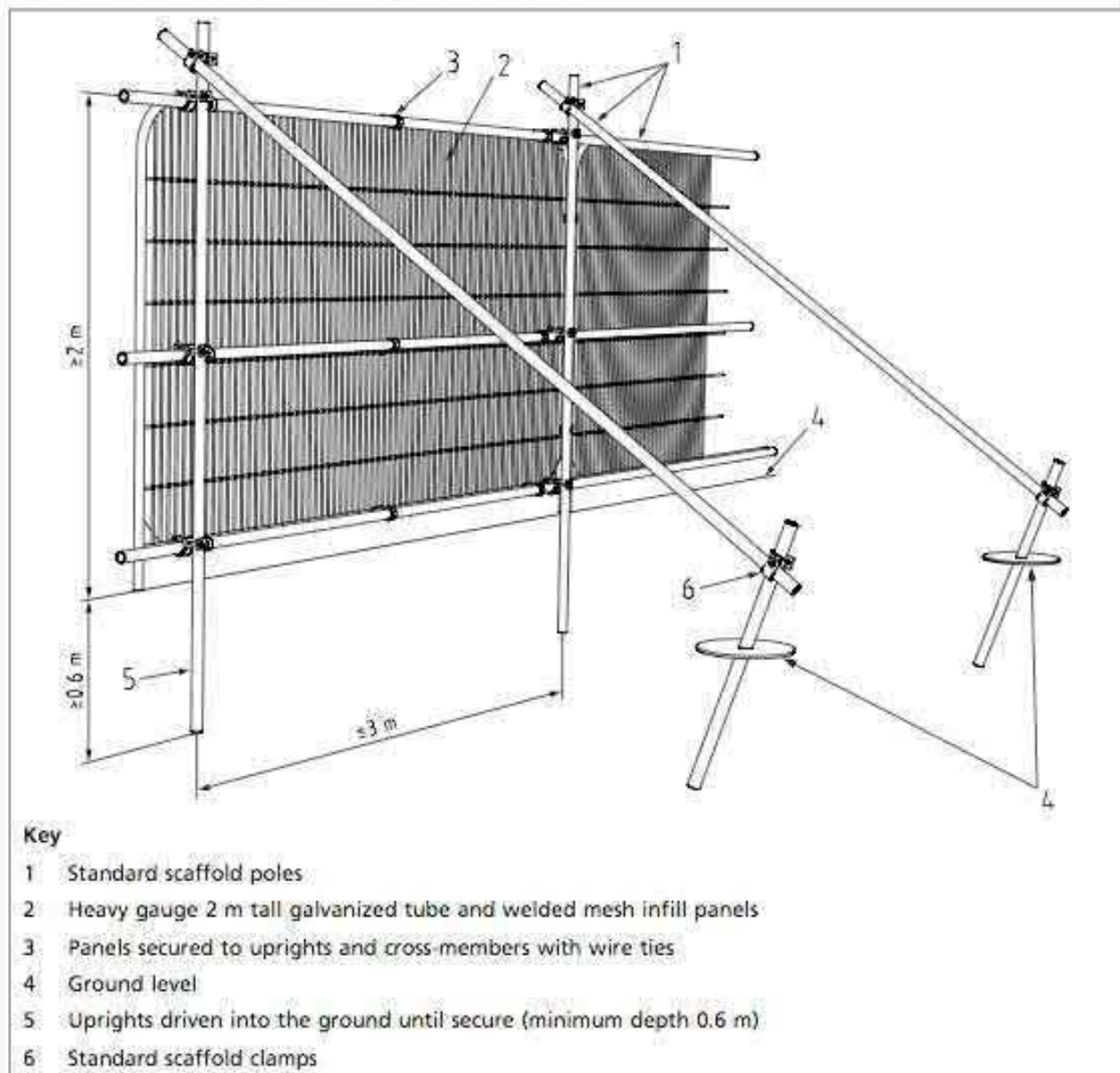
APPENDIX 4

Selected Reference List

The Body Language of Trees by Claus Mattheck & Helge Breloer (1994) London:HMSO.
Diagnosis of ill-health in trees by R.G. Strouts and T.G. Winter. (2000) London:HMSO
Principles of Tree Hazard Assessment and Management by David Lonsdale.(1999) HMSO
BS5837:2012 British Standards Institute
BS3998:2010 British Standards Institute
Trees Their Use, Management, Cultivation and Biology Robert Watson 2006
Tree roots in the built environment (Research for Amenity Trees) (2013) Arboricultural Association
Law of Trees, Forests and Hedges
by Dr. Charles Mynors (Author) Sweet & Maxwell; 2nd Revised edition (14 Dec. 2011)
Assessment of Tree Forks, Assessment of Junctions For Risk Management by Dr. Duncan Slater : Arboricultural Association (Nov 2016)
Collins Tree Guide by Owen Johnson (2006): Harper Collins, London

Tree protective fencing

Figure 2 Default specification for protective barrier

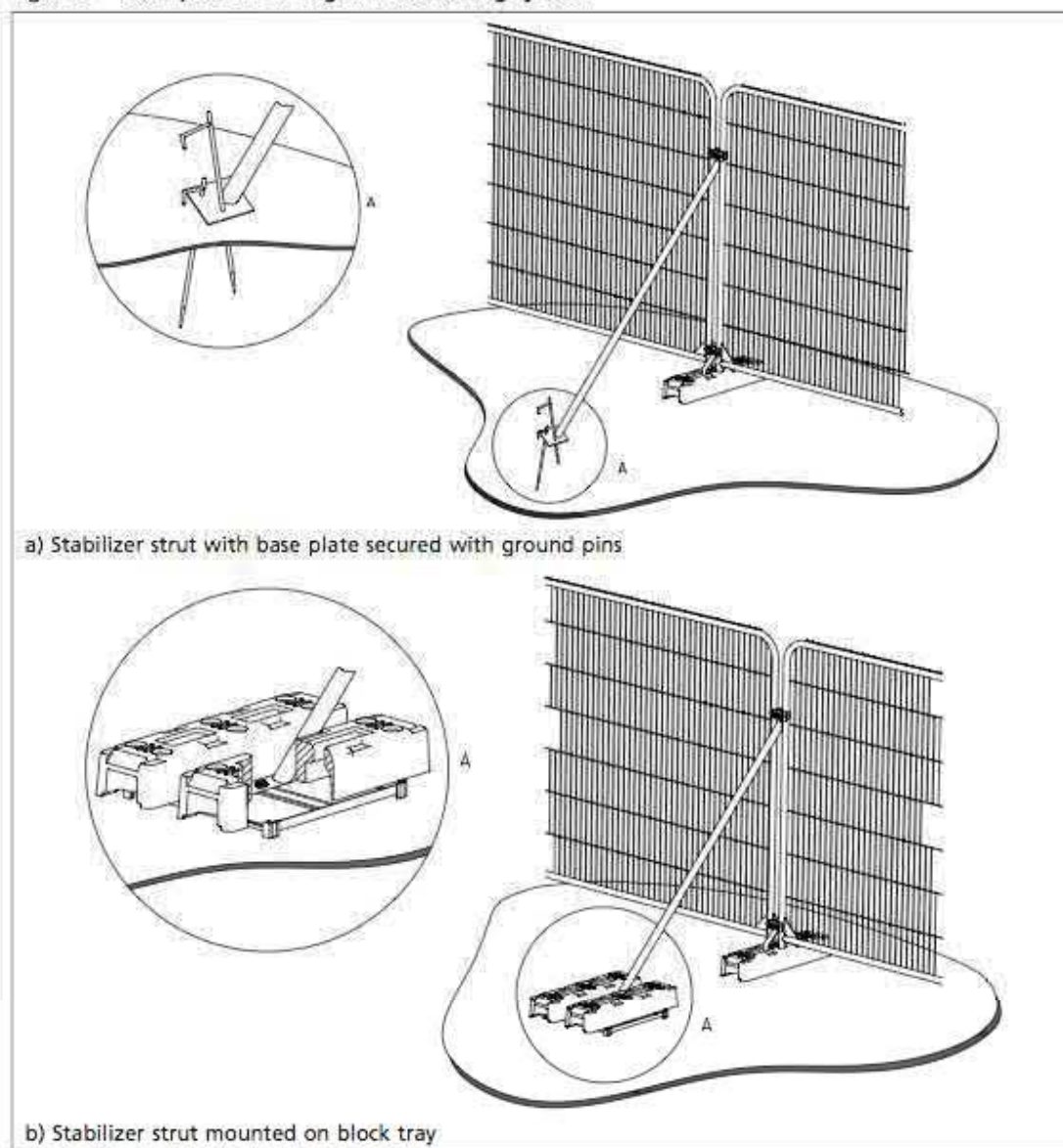


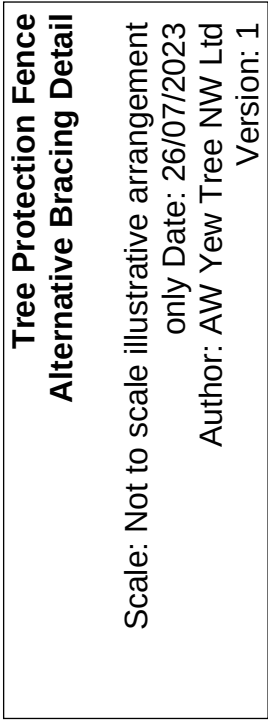
Tree protective fencing

BRITISH STANDARD

BS 5837:2012

Figure 3 Examples of above-ground stabilizing systems







**TREE PROTECTION
AREA
KEEP OUT!**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE
AGREEMENT OF THE LOCAL AUTHORITY OR ARBORICULTURAL
CONSULTANT**