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Arboricultural Impact Assessment

- Tree Survey
- Tree Protection Plan
- Arboricultural Method Statement

For:-

Installation of low carbon heating and
hot water systems, with associated
enclosures, infrastructure, plant and
control systems

At:-

The Forest School
Robin Hood Lane
Winnersh
Wokingham
RG41 5NE

On behalf of:-

The Forest School
Robin Hood Lane
Winnersh
Wokingham
RG41 5NE

Prepared by:

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Survey Date: 18th March 2026
Report Date: 24th March 2026
Project no: 2591

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1 BACKGROUND

- 1.1** This Arboricultural Impact Assessment has been instructed by Esos Energy on behalf of The Forest School to specify tree protection measures and to assess the arboricultural impact of the proposed installation of low-carbon heating and hot water systems comprising air-to-water heat pumps, air-to-air heat pumps, and water-source heat pumps together with associated enclosures, infrastructure, plan and controls systems and landscaping, following removal of existing gas-fired heating and hot water infrastructure.
- 1.2** Trees were surveyed, with findings shown in the Tree Schedule in Appendix B and plotted on the Tree Protection Plan in Appendix A. This also shows tree protection measures, which are specified in the Arboricultural Method Statement in section 5 below. The arboricultural impact is assessed in section 6, which assumes that these measures are followed.
- 1.3** The tree survey was undertaken, and this report has been prepared, by Catherine Fforde HND Hort, Dip Arb L4(ABC), MCIHort, MArborA and approved by Simon Stephens MA Oxon, Dip Arb (RFS), MArborA, C Env, MICFor a Registered Consultant with the Arboricultural Association, with over 20 years relevant experience.
- 1.4** This survey and report have been prepared in accordance with the recommendations of BS 5837:2012, Trees in relation to design, demolition and construction - Recommendations.

1.5 Documentation supplied:

- OS Site Plan
- Heaton Design & Engineering, Proposed Site Plan: drawing no: 2110-HDE-00-DR-ME-00001 REV T3

2 SURVEY DETAILS AND SCOPE

- 2.1 The site survey included trees and shrubs, within influencing distance of the proposed development, with a stem diameter over 75mm at 1.5m height, as shown located on the Tree Protection Plan, included as Appendix A.
- 2.2 Tree inspection took place from ground level with the use of binoculars, sounding hammer and metal probe using the Visual Tree Assessment method (Mattheck & Breloer 1994). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could increase the risk of structural failure were noted.
- 2.3 Tree diameters were measured using a girthing tape and tree heights were measured using a hypsometer. Where use of a tape was restricted by site factors, diameters were estimated, with the diameter recorded in the tree schedule preceded by the word "est".
- 2.4 At the time of the survey, the weather was fine with no restrictions to visibility. Broadleaf trees were not in leaf. In places, dense undergrowth restricted access/dense ivy restricted visibility of tree stems.
- 2.5 Tree details are shown on the Tree Protection Plan included as Appendix A. Tree locations have been determined by measuring distances from features shown on the plan, using a laser measuring device. Some features on the plan which were used as fixed points were not to scale and tree positions may not be entirely accurate. The following information was recorded for each tree, and is shown in the Tree Schedule included as Appendix B:
- **Number:** an identity number for each tree, prefixed with a "T", which cross references locations shown on the plan with the schedule in Appendix B. Where a number of trees are located close together and are similar in character and management requirements, they have been treated as a Group under a single number, prefixed with a "G".
 - **Species:** common name.
 - **Tree height:** approximate height in metres.
 - **Stem diameter:** diameter in millimetres, taken at 1.5m above ground. Where there are a number of stems, stem diameters are recorded in the condition column.
 - **Branch spread:** approximate spread in metres to N,S,E and W of the trunk. The approximate branch spread is drawn on the plan.

- **Canopy clearance:** approximate height of the canopy above ground. Where a significant, low lateral branch is present, its height and direction of growth is included in the Condition column.
- **Age class:** Young, Semi-mature, Early mature, Mature, Over-mature, Veteran.
- **Condition:** features that affect the safe useful life expectancy and amenity of the tree, including the presence of decay or any physical defect.
- **Management Recommendations:** recommendations to ensure the health and safety of the tree, within the future development.
- **Estimated Remaining Contribution:** <10 years, 5-15 years, 10-20 years, 15-30 years, 20-40 years, >40 years.
- **Category grading:** tree classification taken from BS 5837:2012, Trees in relation to design, demolition and construction (see Appendix C for details), as follows:
 - Category U: Unsuitable for retention, trees with less than 10 years life expectancy, normally recommended for removal (Red)
 - Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation. (Green)
 - Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained. (Blue)
 - Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not unreasonably constrain the layout. (Blue)
 - Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting. (Grey)

For category A, B and C trees, a subcategory has been allocated, providing information on the reasons for selection of a specific category, as follows:

- Subcategory 1: mainly arboricultural values.
- Subcategory 2: mainly landscape values.
- Subcategory 3: mainly cultural values, including conservation.
- Trees have been classified irrespective of the possible proximity to future construction. The BS 5837 category is colour coded, as indicated above, on the plan included as Appendix A.
- **Protection Distance:** the protection distance in metres required to provide the Root Protection Area recommended in BS 5837, assuming a circular area centred on the tree.
- **Root Protection Area (RPA):** the area in m², as recommended in BS 5837, to provide sufficient rooting area to ensure tree survival and which, in most situations, should be fenced off to prevent root damage from construction activities.

3 SURVEY LIMITATIONS

- 3.1** No internal decay devices, or other invasive tools to assess tree condition, were used.
- 3.2** No soil excavation or root inspection was carried out.
- 3.3** This survey has not considered the effect that trees or vegetation may have on the structural integrity of future building through subsidence or heave.
- 3.4** The tree survey has been undertaken for planning purposes. Although any obvious structural defects have been noted, a Tree Hazard Assessment has not been carried out. Mature trees close to highly populated areas or public highways should normally be checked for safety annually, by a suitably qualified person.

4 LEGAL PROTECTION OF TREES

- 4.1** The Wokingham Borough Council protected tree map was viewed on 12.03.2026, which showed that there are no Tree Preservation Orders within influencing distance of the development, nor does it fall within a Conservation Area. The presence of Planning Conditions currently attached to the site, was not checked.

5 ARBORICULTURAL METHOD STATEMENT

5.1 Site Overview

- 5.1.1 The proposal is for the replacement of the existing heating and hot water system with new air source heat pumps and associated infrastructure. The proposed site plan is included as Appendix F and has been added to the survey drawing, along with tree details, to create the Tree Protection Plan attached as Appendix A.
- 5.1.2 A new compound for ASHPs is to be located in the existing service yard. A single ASHP is to be located outside the sports hall. The cabling routes and associated apparatus are shown on the Tree Protection Plan; none of the equipment is within the Root Protection Areas of trees.
- 5.1.3 An existing footpath is to be realigned to allow for the installation of the ASHP to the rear of the sports hall. Two tree stumps will require removal by grinding out to allow the construction of the path.

5.2 Tree Work

- 5.2.1 Details of proposed tree works are included in the Tree Schedule included as Appendix B.
- 5.2.2 One tree and one tree group are proposed for removal, as detailed in section 6.1 below.
- 5.2.3 All tree work must be undertaken to the standards set out in BS 3998:2010 Tree work – Recommendations.

5.3 Root Protection Areas

- 5.3.1 Root Protection Areas are shown for all trees in the Tree Schedule included as Appendix B. They are also shown for all retained trees, as circular areas centred on the trunk, on the Tree Protection Plan included as Appendix A. Where there are physical obstructions to root growth the Root Protection Area should be shown as an equivalent area that is more likely to reflect actual root growth. The Root Protection Area shows the area around a tree in which all construction activity must normally be excluded, unless appropriate protection measures are implemented.
- 5.3.2 For tree number T10, where the pool building within the Root Protection Area will have prevented root growth, the Root Protection Area is shown as a polygon of equivalent area, to more closely reflect the likely actual root spread.
- 5.3.3 For tree group number G7 where the building within the Root Protection Area will have prevented root growth, the Root Protection Area has been offset by 20% away from the building to more closely reflect the likely actual root spread.

5.4 Tree Protection Fencing

- 5.4.1 Tree Protection Fencing must be erected where shown on the Tree Protection Plan, included as Appendix A. This will provide full protection of the Root Protection Areas of all retained trees within the site, other than for:
- areas shaded cyan on the Tree Protection Plan, indicating Ground Protection Areas, where roots must be protected, as described in section 5.5 below.
 - areas where existing site fences or other built structures are preventing access to Root Protection Areas.
- 5.4.2 Tree works can be completed before Tree Protection Fencing is erected, however no contractors plant or vehicles must be allowed to track within the Root Protection Areas unless ground protection panels are laid.
- 5.4.3 Tree Protection Fencing must be from weldmesh panels, at least 2m high, securely fixed, with wire or scaffold clamps, to a rigid framework. This framework must be constructed from scaffold tubes with vertical tubes, at a maximum interval of 3m and driven into the ground at least 0.6m. The structure must be well braced to resist impacts, constructed as per Figure 2 of BS5837:2012, which is reproduced in Appendix D. Alternatively, weldmesh panels can be supported on blocks, providing the blocks are pinned to the ground with road pins, or similar, and the panels are braced, as per Figure 3 of BS5837:2012, which is also reproduced in Appendix D.

- 5.4.4 After erection of Tree Protection Fencing, two days' notice must be given to the local planning authority before demolition or construction, including any ground work, starts on site.
- 5.4.5 Tree Protection Fencing must be maintained and retained for the duration of the works, or until such time as agreed in writing with the local planning authority.
- 5.4.6 Weatherproof notices must be fixed to the Tree Protection Fencing, and maintained, stating:-

TREE PROTECTION AREA

KEEP OUT

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS
CONTRAVENTION MAY LEAD TO CRIMINAL PROSECUTION
THE FOLLOWING MUST BE OBSERVED BY ALL PERSONS:

- The Protection Fence must not be moved
- No person or machine must enter the area
- No materials or spoil must be deposited
- No excavation must be permitted

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN
PERMISSION OF THE LOCAL PLANNING AUTHORITY

5.5 Ground Protection Areas

- 5.5.1 The Ground Protection Areas, which are shaded cyan on the Tree Protection Plan, contain hard surfacing which is protecting any underlying roots and which must stay in place during the construction period unless further protection measures are implemented.
- 5.5.2 Hard surfacing in Ground Protection Areas can be replaced if the existing sub-base remains in place and if the new surfacing is permeable.
- 5.5.3 If the existing sub-base is removed, ground protection must be laid immediately and then No-Dig construction (using a three-dimensional cellular confinement system) used for the build up. No excavation must be permitted beneath the base course in these areas.

5.6 General measures

- 5.6.1 No construction activity whatsoever, including routing of underground services, storage of materials or on-site parking, must be allowed within Root Protection Areas, other than that specifically described above.
- 5.6.2 No mixing or storage of cement, concrete, oil, fuel, bitumen or other chemicals must be permitted within 10m of the trunk of any retained trees, nor in any position where the slope of the ground could lead to contamination of the Root Protection Area.
- 5.6.3 Fires must not be lit in a position where their flames could extend to within 10m of foliage, branches or trunk.
- 5.6.4 Landscape works carried out within Root Protection Areas must be undertaken with great care so as not to damage shallow roots. Tractor mounted rotovators or other heavy mechanical cultivation must not be used within the Root Protection Areas.
- 5.6.5 If any tree shown for retention is removed, uprooted or destroyed, another tree must be planted in the same location, at a size and species to be agreed in writing with the Local Planning Authority.
- 5.6.6 A copy of this report and the Tree Protection Plan must be kept on site and must be fully understood by the Site Agent.

5.7 Bat roosts

- 5.7.1 The current legislation makes it a criminal offence to disturb, damage or destroy any bat roost or hibernation area. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.

5.8 Birds

- 5.8.1 The current legislation makes it a criminal offence to disturb nesting birds. The nesting season is generally assumed to be from 1st March to 31st July, however this can vary depending on species and location. During these months a careful inspection must be made before work commences and works must be postponed if active nests are found.

6 ARBORICULTURAL IMPACT ASSESSMENT

- 6.1** The following trees / tree groups, categorized as per BS 5837 (see Appendix C for details), are proposed for removal:
- Category U – unsuitable for retention: One tree – T9.
 - Category C – low quality: One tree group – G14.
- 6.2** Tree removals have been recommended in the interests of sound arboricultural management; they are not required to facilitate the development.
- 6.3** The positioning of the apparatus and the associated cable routing has been designed to avoid conflict with trees.
- 6.4** Protection measures have been specified to protect the Root Protection Areas of all retained trees. Provided the recommendations in this report are followed the existing tree cover will be unaffected by this development.

7 REFERENCES

- *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.*
- *BS3998:2010 Tree Work. Recommendations.*

APPENDIX A

Key

Category U

Category A

Category B

Category C

Crown spread:
retained trees

Trees For Removal

Root Protection Area

Tree Protection Fence

Ground Protection Area:
existing hard surface

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JOB TITLE
THE FOREST SCHOOL

DRAWING TITLE
TREE PROTECTION PLAN

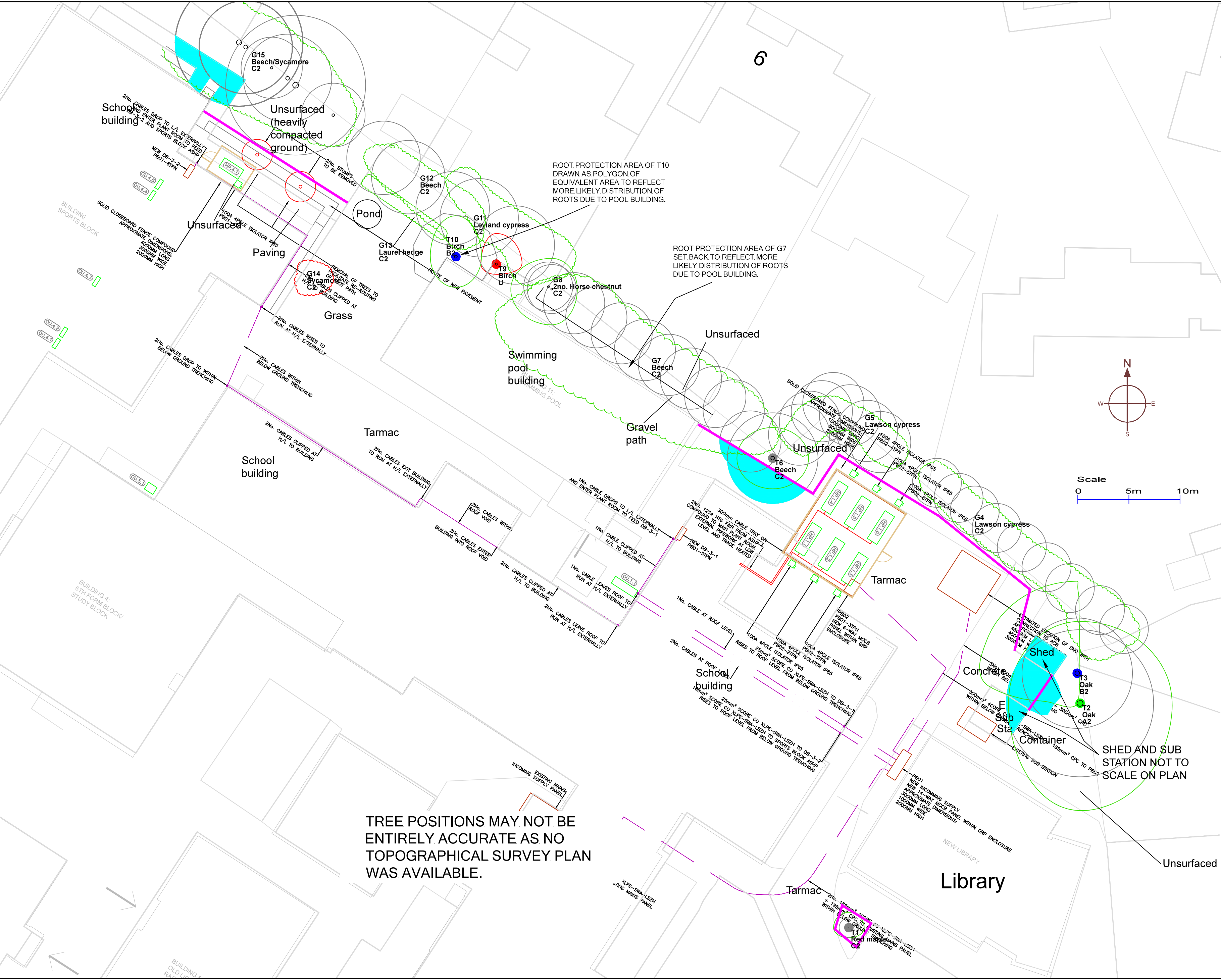
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2591-01

REVISIONS

SCALE
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DATE
MAR 26

DRAWN BY
cf



The Forest School

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
T1	Red maple	5	80	1.5	1	1.5	1.5	2	Young	Stem enclosed by metal tree guard. Good form and structure.	Remove small side shoots from stem to maintain 1.8m clear stem.	20-40	C2	1.0	3
T2	Oak	11	est 600	8	11	9	7	3	Mature	Just to inside of fence. Dense ivy with thick stems - base not inspected. Multiple stems above 2m. Good form and structure. Lawson cypress through northeast side of crown causing damage to limbs.	Remove section of ivy from base. Remove elder from base.	>40	A2	7.2	163
T3	Oak	10	est 450	9	3	0	9.5	3.5	Early mature	Stem between chainlink and closeboard fences. Dense ivy with thick stems - base not inspected. Main stem bent at 45° to north-north-west from 1.8m. Stem bifurcates at approx 2.2m. Minor deadwood.	Remove section of ivy from base	20-40	B2	5.4	92
G4	Lawson cypress	6 - 7	100 - 200					2.5	Early mature	Line of trees to back of site fence. Previously topped. Some growing out at eastern end and competing with oak trees. Bare where cut hard back.		10-20	C2	2.4	18
G5	Lawson cypress	6.5 - 9.5	90 - 250					3.0	Early mature	All previously topped at approx 2m but now with new leading stems. One new stem curving out over site. Bare patches where over reduced or shaded out. Dense ivy in places. Extending up to 1.7m over site.		5-15	C2	3.0	28
T6	Beech	10	370	3	3	3.5	3.5	4.5	Early mature	Multi stem above 1.5m. Low limbs removed. Outgrown hedging plant showing good vitality but with poor form and structure.	Remove section of ivy from base	10-20	C2	4.4	62
G7	Beech	8	150 - 250					2.0	Early mature	Line of closely spaced outgrown hedging trees. Dense ivy. Crowns extending over pool building. Good vitality. Gaps in places.	Remove section of ivy from tree bases. Remove dead trees from northwest end located to back and side of plant building.	10-20	C2	3.0	28
G8	2no. Horse chestnut	8	est 200	3	3.5	2.5	4	1.5	Semi-mature	Growing together at end of of G7. Dense ivy and basal shoots - bases not seen. Good vitality. Will become overlarge for location.	Remove section of ivy from base. Cut back to provide clearance to roof of pool building.	15-30	C2	2.4	18
T9	Birch	8	220	3	1	2.5	1.5	1.8	Dead	Dead.	Remove to alleviate risk from future failure.	<10	U	2.6	22
T10	Birch	10.5	est 290	4	3	2.5	2.5	3.5	Early mature	On mound close to pool building. Dense ivy - base not inspected. Attractive tree.	Remove section of ivy from base. Cut back competing trees from north side of crown.	20-40	B2	3.5	38

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Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Root Protect. Area (m2)
				N	S	E	W								
G11	Leyland cypress	9.5	110 - 320					3	Early mature- Mature	Line of trees in adjacent property, just outside fence. Crowns extending up to 4m over site.	Trim back foliage to prevent encroachment.	15-30	C2	3.8	46
G12	Beech	5.5	250 - 300					1.5	Early mature	Line of mainly closely spaced trees with occasional gaps - outgrown hedging. Tree closest to pool building is becoming overlarge and is engulfed in ivy.	Remove section of ivy from base. Cut back where required to check growth.	10-20	C2	3.6	41
G13	Laurel hedge	1.5 - 2.5	25 - 50					0	Early mature	Evergreen hedge growing out from under G12.		5-15	C2	0.6	1
G14	Sycamore	3.5	50 - 95					0.5	Young	Group of multi stem shoots - possibly self set. Inappropriate and unsustainable in location.	Remove and grind out bases. Plant new tree in preferred location.	5-15	C2	1.1	4
G15	Beech/Sycamore	8 - 10	250 - 570					3	Semi- mature- Mature	Trees close to site fence - likely remnants of outgrown hedge. Majority beech with one sycamore at eastern end. Linear group of beech continues to northwest. Crowns extending up to 6m over site. All of very poor form and structure. Occasional decay points.		10-20	C2	6.8	147

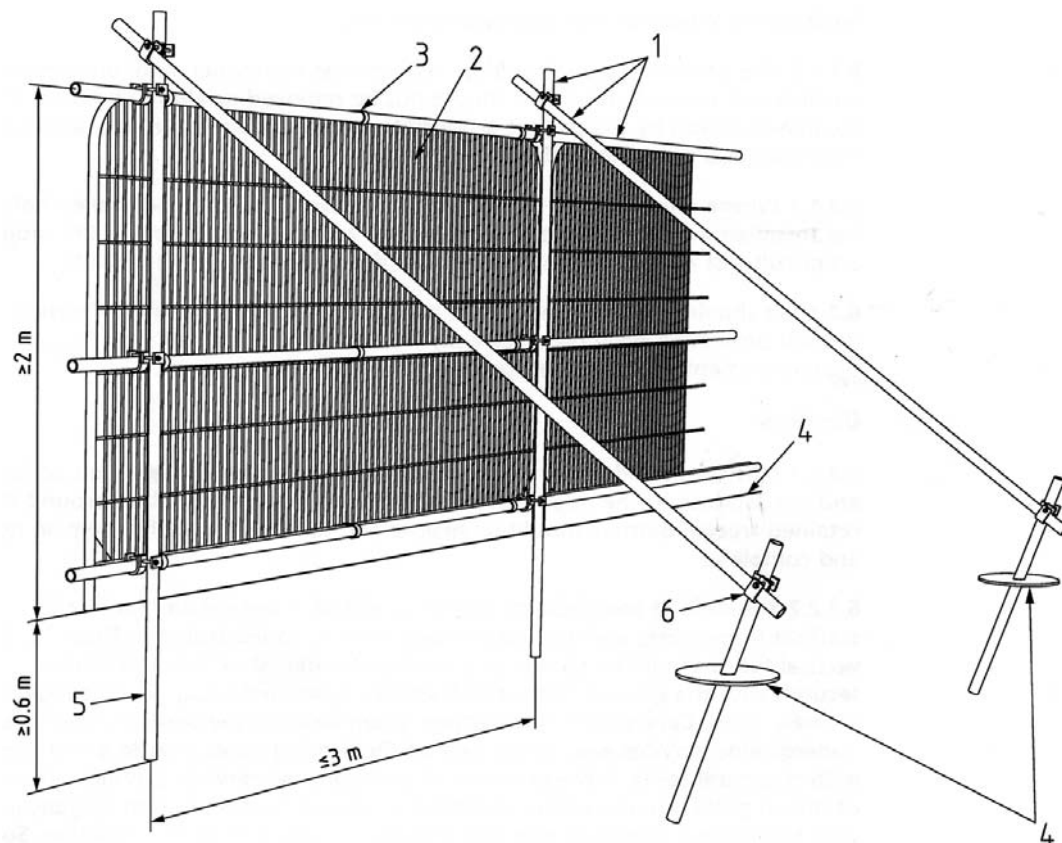
BS 5837:2012, Table 1 Cascade chart for tree quality assessment

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

Figure 2

Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m galvanised 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



Examples of above-ground stabilising systems

Figure 3a

Stabiliser strut with base plate secured with ground pins

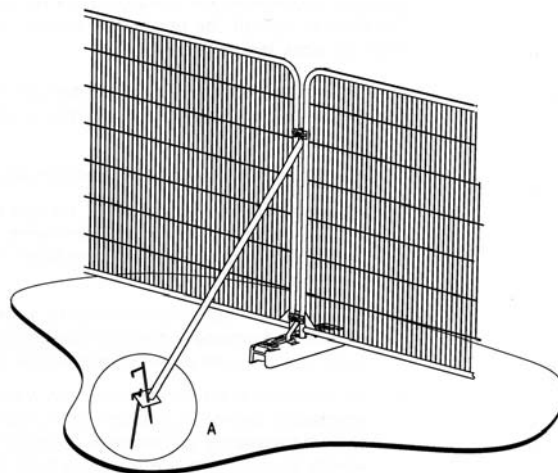
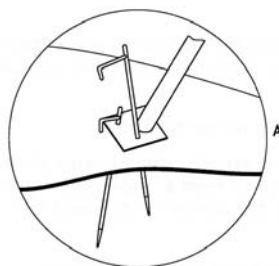
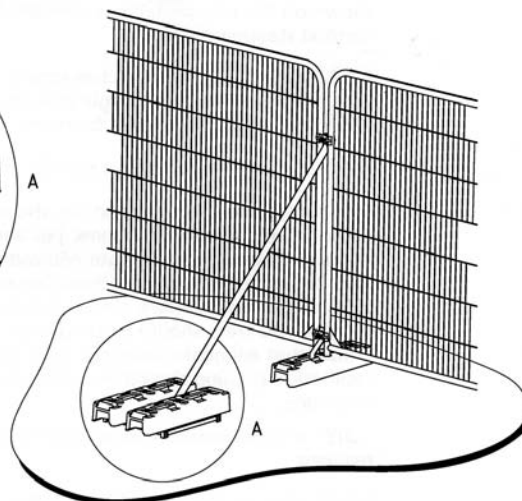
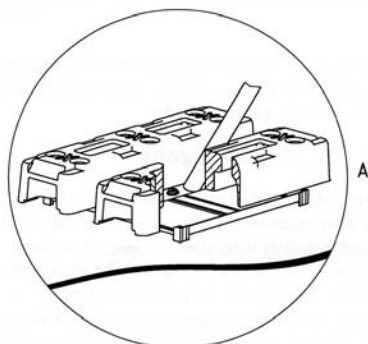
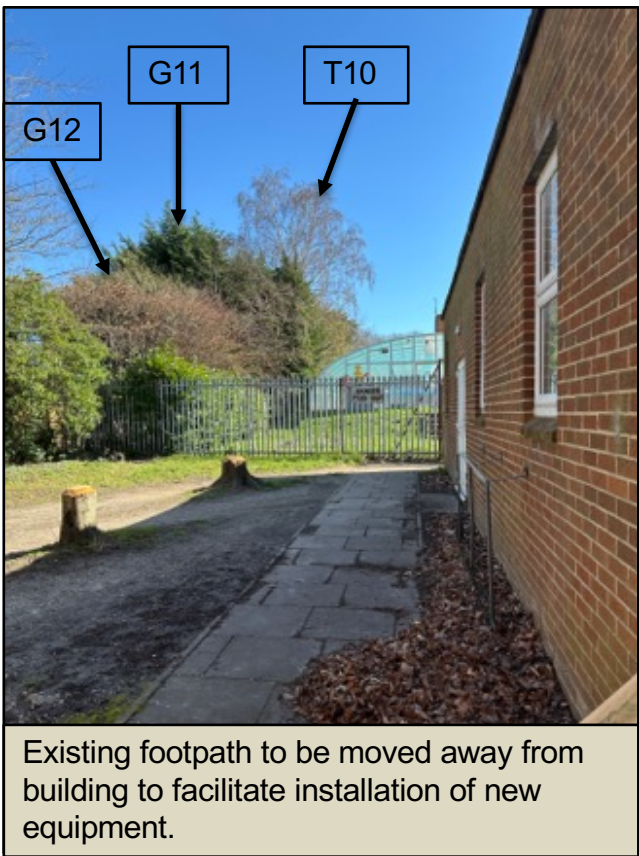


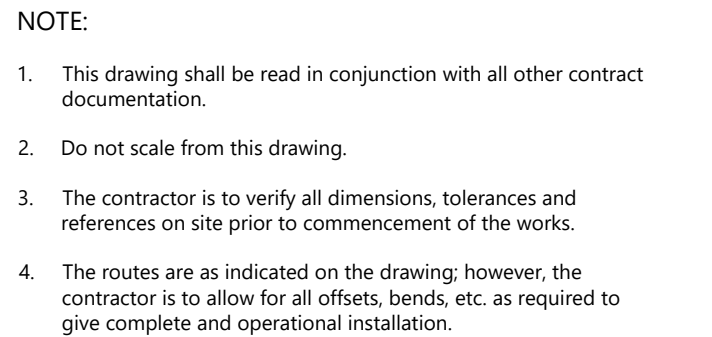
Figure 3b

Stabiliser strut mounted on block tray









	ISOLATOR
	ELECTRICAL CABLE ROUTE
	ELECTRICAL TRENCHING ROUTE
	PIPEWORK ON ROOF
	PIPEWORK IN CEILING VOID
	PIPEWORK AT LOW LEVEL
	PIPEWORK BELOW FLOOR/GROUND LEVEL

