

Mr & Mrs J Arkwright

Detached Dwelling  
Off Worsbrough Road  
Birdwell  
Barnsley

Planning Application

Arboriculture survey

CONTENTS

1. Survey

PREPARED BY :

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## **1.0 Instruction and Purpose of the Report**

- 1.1 Site Address:- Former St Mary's Church of England Junior & Infants School, Worsbrough Road, Birdwell, Barnsley, South Yorkshire S70 5RG.
- 1.2 I have been instructed By Mr & Mrs J Arckwright to undertake a tree survey and qualify by statement, information required by the local authorities planning department, pertaining to national planning requirements and in accordance with BS 5837 : 2012 (Trees in relation to construction).
- 1.3 To provide the methodology and design details with recorded positions of the existing trees within the sites curtilage noted as T1 to T16 situated on the south boundary and T17 to T30 on the east boundaries inclusive of T39 of plot 2 as identified on plan CAD/QA/1514
- 1.4 To provide a tree constraints plan (TCP) in accordance with BS 5837 : 2012 (Trees in relation to construction – recommendations) showing the developable area on the site and the potential constraints that the trees pose, both above and below ground.
- 1.5 The details are in respect of a proposed planning application, to be submitted by Quill Architecture, who are the nominated agents acting on behalf of Mr & Mrs Arkwright the current owner and developers of the site.
- 1.6 The proposed application relates to the erection of 1No, 5 bedroom residential dwelling house, within the site for, Mr & Mrs Arckwright. Due to the site constraints the dwelling, by design, has to be positioned with a rear projection no further into the green belt land than already exists by the school structure currently occupying the site.
- 1.7 The proposed positional tolerances, of the new building have been the subject of discussion with the both the local authority's area planning officer and negotiation with the tree officer. See site layout drawing CAD/QA/1515, 16

## **3.0 Land Usage**

- 2.1 In accordance with the LDF descriptive and the UDP maps the site currently is and will remain in an area allocated as green belt. At present plot 2 forms part of a larger parcel of land, which is to be sub divided to form two distinct residential building plots highlighted as plot1 and plot 2, on drawing CAD/QA/1514,15.

### **3.0 Topography**

- 3.1.1 The site initially slopes in a gentle downward direction from the public highway adjacent to Worsbrough Road, before providing a level surface over the remaining area to plots 1 & 2 within the site defined curtilage.

### **4.0 Methodology and Limitations**

- 4.1 The design processes consisted of an above ground topographical visual inspection only. Soil type has not been assessed.
- 4.2 On visual inspection the trees have been divided into 3 distinct groups. Group 1 consists of 16 trees in total, (T1 to T16 drawing No CAD/QA/1514). Dispersed along the south boundary, the trees form a cluster, which mainly occupy the lower half of the site. Due to the current planning criteria and with regard to the sites classification, the tree species have been identified and categorized within section 5 of this report, (tree quality and survey details.)
- 4.3 To the east boundary and denoted as group 2, consists of 5 trees in total, (T27 to T30 & T39) each display differing stages of maturity. (drawing No CAD/QA/1514).
- 4.4 Additionally and set again to the east boundary a further 10 trees exists, (T17 to T26), which are denoted as group 3. (drawing No CAD/QA/1514). The majority I.e. T17 to T23 will be outside the scope of the immediate construction area, but never the less protection will be afforded with equal weight. There is within this group 3 No trees T24, 25 & 26, which have been highlighted for removal. These existing trees are of poor quality and provide no singular or cumulative enhancement to the retained group. The collective number of retained trees within groups 1, 2 & 3, impact into plot 2 but provide a sustainable tree-scape within the site curtilage.
- 4.5 The remaining trees outside the boundary of plot 2, and within the curtilage of plot 1 have been recorded, for position only as part of this survey as ownership of the land is by a third party. CAD/QA/1514
- 4.6 All measurements, during the survey have been carried out using three modes of instrument.
1. Steel measuring tape. 2. Leica electronic distance metre. 3. Pentax TH20 Theodolite.

#### 4.0 Quality and survey details

##### Group 1 (All trees within group)

Tree No	Species	Height (m)	Stem Diameter	Crown Radius m				Crown Ht (m)	Age Class	Remaining Contribution	Structural & Physiological Condition	Preliminary management Recommendations	Retention Category
				N	S	E	W						
T1	Silver birch	9.5	300	4	1	4	4	5	M	10+	Restricted Crown	Removal	R
T2	Silver birch	10.5	250	3	2	3	3	4.5	MA	30+	Restricted Crown	Removal	R
T3	Silver birch	10.5	150	3	2	2	2	5	Y	40+	Poor	Removal	R
T4	Silver birch	11	200	2	2	1.4	2.5	3	MA	30+	Restricted Crown	pruning	B
T5	Horse Chestnut	10	250	3	1.5	4	1.5	3.5	Y	40+	Asymmetric Crown	Removal	R
T6	Silver birch	12	250	2.3	3	2	1.5	3.5	MA	30+	Restricted Crown west	Removal	R
T7	Silver birch	12	270	4	3	3.5	1	5	MA	30+	Restricted Crown west Listing 15° west	Removal	R
T8	Horse Chestnut	12	250	4.5	3	0.8	3	4	MA	30+	Poor Restricted Crown south	Removal	B
T9	Silver birch	14	250	3.6	1.5	3	0.7	4	MA	30+	Normal Listing 15° north	pruning	B
T10	Silver birch	14	250	3	3	3	3	3	MA	30+	Normal	pruning	B
T11	Mountain Ash	9.5	200	2	2	2	1	1.8	M	30+	Poor	pruning	B
T12	Silver birch	13	200	3.3	1	2.5	1.5	4	MA	40+	Normal Listing 15° north	pruning	B
T13	Horse Chestnut	6	200	2.3	2	1	3.1	2	Y	10+	Poor	pruning	C
T14	Silver birch	12	150	2.8	1	2	1	5	Y	40+	Restricted Crown west	pruning	U
T15	Horse Chestnut	5	200	4	4	4.5	1.9	2	Y	40+	Restricted Crown west	pruning	B
T16	Mountain Ash	4	250	3	1.8	2.8	1.5	1.6	MA	30+	Restricted Crown west	pruning	B

**Group 2 (All trees within group)**

Tree No	Species	Height (m)	Stem Diameter	Crown Radius				Crown Ht (m)	Age Class	Remaining Contribution	Structural & Physiological Condition	Preliminary management Recommendations	Retention Category
				N	S	E	W						
T27	Silver Birch	8	200	2.8	2	2	2	2.6	MA	40+	Normal	pruning	B
T28	Ash	8	200	3	3	3	3	3	M	40+	Poor	pruning	B
T29	Unknown	6	250	3.1	3.4	3.4	3.4	1.4			Normal	pruning	B
T30	Lime	8	350	3.6	3.6	3.6	3.6	3			Poor	pruning	B
T39	Lime	6	150 200	2	2	2	2	2			Poor	pruning	B

**Group 3 (All trees within group)**

Tree No	Species	Height (m)	Stem Diameter	Crown Radius				Crown Ht (m)	Age Class	Remaining Contribution	Structural & Physiological Condition	Preliminary management Recommendations	Retention Category
				N	S	E	W						
T17	birch	5	200	4	1	4.5	1	1.7	MA	40+	Restricted Crown	pruning	B
T18	birch	18	500	6	6	6	6	2.2		40+	Normal	pruning	A
T19	birch	18	400	2.4	2.4	2.4	2.4	2.2		40+	Normal	pruning	B
T20	birch	5	125	4	1	4.5	1	1.7		40+	Restricted Crown	pruning	B
T21	Birch	18	500	6	6	6	6	2.2		40+	Normal	pruning	A
T22	Lime	9	300	4	3.2	3.2	3.5	1.6	M	30+	Normal	pruning	B
T23	Lime	8	350	4.2	3	3.2	3.5	1.7		30+	Normal	pruning	B
T24	Mountain Ash	8	250	3.7	2.2	2.8	3	1.5	M		Restricted Crown	Removal	R
T25	Mountain Ash	4	125	1	2.4	2.4	1.6	1.8	Y		Poor	Removal	R
T26	Mountain Ash	4	200	2.4	2.4	2.4	2.4	1.6	M		Normal	Removal	R

## **6.0 Initial Recommendations (phase 1 preparatory work)**

- 6.1 Due to the sites constraints and the design of the dwellings footprint there is a requirement for the removal of trees T1,T2,T3,T4,T5,T6 & T7 in group 1. (drawing No CAD/QA/1515). This will give rise to improved sustainability and management of the remaining trees, but will also allow a defined access to be achieved to the proposed garage block and parking area, without losing any aesthetic quality to the remaining tree group.
- 6.2 It has been identified by a visual inspection, that, T6 (silver birch), which lies within close proximity to the south boundary of plot 2, appears to have caused significant damage to the concrete floor slab of the neighbouring properties detached garage, which, is constructed on the south boundary and lies within the identified theoretical root spread . This incursion has manifested itself by a noticeable fissure. Due to this event it is proposed that removal of T6 would be beneficial to both the existing property owners and Mr & Mrs Arckwright, before there is any further proliferation of ground heave.
- 6.1 The design of the dwelling takes into account the impact demonstrated by the existing retained tree group T8,T9,T10,T11,T12,T13,T14,T15 & T16 which in accordance with BS 5837 : 2012 (cascade chart for tree quality assessment) provide a valuable contribution to the overall site and a softening effect to the built environment.
- 6.2 Before any work what so ever relating to the setting out, construction or general preparatory work required is carried out within the proposed site. Retained trees contained within group 1, highlighted in Para 6.1 are to undergo general remedial and deadwood pruning. This work is to be carried out by a suitably qualified person in accordance with BS3998 (recommendations for tree work)
- 6.3 In addition implementation of a similar general pruning exercise will be undertaken to the retained trees allocated to group 2 which consist of T27,28,29, 30, & 39. This by its very nature will enhance and afford the maximum life expectancy of the retained trees to be achieved.
- 6.4 The protection of trees within group 3 shall apply with equal weight, as the treatment afforded to the retained tree group 1 & 2, and must be maintained at all times. Identification of group 3 is shown on drawing No CAD/QA/1514.

## 7.0 Root protection Area Schedule

7.1 This is an assessment of the Root Protection Area, based on individual tree data collected during the recorded survey and BS5837 : 2012 . Root spread shown on drawing (CAD/QA/1515).

### Group 1 (Retained trees within group)

TREE REF No	SPECIES	SINGLE/MULTI S/MS	STEM DIAMETER (mm)	INITIAL LINEAR ROOT PROTECTION DIST (LINEAR m)	RPA m2
T8	Silver birch	S	250	3000	28.274
T9	Silver birch	S	250	3000	28.274
T10	Silver birch	S	250	3000	28.274
T11	Mountain Ash	S	200	2400	18.095
T12	Silver birch	S	200	2400	18.095
T13	Horse Chestnut	S	200	2400	18.095
T14	Silver birch	S	150	1800	10.178
T15	Horse Chestnut	S	200	2400	18.095
T16	Silver birch	S	250	3000	28.274

### Group 2 (Retained trees within group)

TREE REF No	SPECIES	SINGLE/MULTI S/MS	STEM DIAMETER (mm)	INITIAL LINEAR ROOT PROTECTION DIST (LINEAR m)	RPA m2
T27	Silver birch	S	200	2400	18.095
T28	Silver birch	S	200	2400	18.095
T29	Silver birch	S	250	3000	28.274
T30	Silver birch	S	350	4200	55.417
T39	Lime	M	125/200	3900	47.78

### Group 3 (Retained trees within group)

TREE REF No	SPECIES	SINGLE/MULTI S/MS	STEM DIAMETER (mm)	INITIAL LINEAR ROOT PROTECTION DIST (LINEAR m)	RPA m2
T17	Silver birch	S	200	2400	18.095
T18	Silver birch	S	500	6000	113.097
T19	Silver birch	S	400	4800	72.382
T20	Silver birch	S	125	1500	7.068
T21	Mountain Ash	S	500	4800	72.382
T22	Silver birch	S	300	3600	40.715
T23	Horse Chestnut	S	350	4200	55.417

- 7.2 Prior to commencement of any work what-so-ever on or adjacent to the site. The root protection area associated with the existing retained trees shall be protected from damage by the erection of a primary tree protection fencing, on a scaffold framework. All fences/barriers are to be in accordance with BS5837: 2012. These barriers shall be maintained in position at all times and kept in good condition during the course of the development of the site area.
- 7.3 No removal of the barriers must take place other than to be relocated or replaced.
- 7.4 The extent of the tree root protection area as shown on drawing CAD/QA/1515 & 16 in the tree protection plan is in accordance with BS 5837 : 2012 'calculating the RPA'. The calculations have been based upon the area equivalent to a circle radius 12 times the stem diameter for single stem trees taken at 1.5m above the immediate ground level). Or if a tree has more than 1 diameter value then it will add up the square of all the diameter values and use the square root of the result as a mean diameter as T39 displays. The stem diameter of the tree will be adjusted to match the total diameter count. Or if a tree has a single diameter and more than 1 stem then the square of the diameters will be multiplied by the stem count and the square root of the result used as a mean diameter value.
- 7.5 Due to the sites open boundaries, it is assumed that normal root development within the existing site has taken place and be expected to have developed symmetrically in accordance with BS 5837. 2012. Therefore to achieve the root protection area required the protection fence will be erected as shown in drawing CAD/QA/1515, 16.

## **8.0 Protection Fencing & Signage**

- 8.1 Protective fencing/barriers shall be in strict accordance with BS5837 Tree protection fencing and placed in the positions shown on drg CAD/QA/ 1515, 16.
- 8.2 Tree protection fencing to comprise of standard scaffold poles complete with clamps, Swivel couplers, double couplers and sleeve couplers. Providing a skeletal frame, the frame is to be well braced to resist lateral impact. Vertical steel tubes are to be spaced at a maximum of 3m intervals and set at a depth of 600mm into ground. Infill panels to be 2.3m high Heras steel galvanised panels or similar which are to be securely fixed to the frame using scaffold clamps or wired in position.
- 8.3 Details of protection fence required are shown in appendix 1 of this report.
- 8.4 All protective fencing shall be retained and maintained in good order/condition for the full duration of the construction period and considered sacrosanct unless otherwise agreed in writing with the LPA.
- 8.5 Site notices affixed to the fencing, are to be pre printed laminated waterproof signs a minimum of A3 in size and should be fixed securely to the fencing panels dividing the enclosure.
- 8.6 Signs should be securely attached to the fencing panels to be easily seen by any persons contracted or visiting the site. Signage to be fitted in appropriate positions shown on site plan CAD/QA/1516 and maintained throughout the duration of any demolition or construction phases.
- 8.7 Signs to read,
- Tree Protection Area  
Keep out  
(Town & Country Planning Act 1990)  
Trees enclosed by this fence are protected by  
Planning Conditions and/or are the subject of a  
Tree Preservation Order.  
Contravention of a tree preservation order May  
Lead to Criminal Prosecution.
- 8.8 Any incursion whatsoever into the tree protection area must be with written permission of the local planning authority.

**9.0 Precautionary Measures taken within construction exclusion zone.**

- 9.1 Fencing to be erected prior to any development or demolition commencing on site or any materials or machinery associated with the development are brought to or onto the site.
- 9.2 All exclusion zone fencing shall be properly maintained for the duration of the development unless otherwise agreed with the local planning department.
- 9.3 No materials, machinery, or chemicals of any sort shall be stored within the root protection zone for the duration of the development.
- 9.4 All ground levels within the root protection area shall not be lowered or raised without the consent of the local planning authority.
- 9.5 Where any new planting is to be carried out to the landscape then the area is to be treated with a translocated herbicide. All vegetation shall be removed once dead by the use of hand tools only.
- 9.6 The use of machinery is forbidden within the exclusion zone for the digging of trenches i.e. drainage runs or specific plantings.

**10.0 Protective Measures outside the Root Protection Area.**

- 10.1 All deliveries to the site must at all times enter/exit the site via the identified access/egress point situated along Worsbrough Road.
- 10.2 At all times deliveries made to the site must be monitored to prevent damage or harm being caused to the tree or tree canopy by vehicular movement,
- 10.3 A banks man must be appointed to provide supervision for all vehicular movements, entering, within and leaving the site
- 10.4 Any materials likely to be injurious to the trees, such as the mixing of cement or the discharge of cement, oil, bitumen or other should not be permitted directly outside the protective fencing where contaminated fluids could drain towards the trees.
- 10.5 No fires should be lit in a position where their flames can extend to within 5m of any foliage, branches or stems.

- 10.6 Any notice boards, telephone cables or any other services temporary or permanent should not be attached to any part of the trees.
- 10.7 Exploratory excavations for root presence in tree group 2 (T27, 28, 29, 30 & 39) will be carried out on the eastern side of the proposed dwelling in particular, prior to construction phase 2. This will identify if any substantial root systems exist in areas where foundations are to be laid.
- 10.8 The existing trees are not to be used as anchorages or for any other purpose.
- 10.9 No dumping of any spoil or rubbish or the placement of any temporary structure or storage of materials within the root protection areas is strictly prohibited.
- 10.10 No equipment, machinery or materials are to be brought on site for the purpose of development until written consent is obtained from the LA (Barnsley Metropolitan Borough Council.)
- 11.0 Tree Protection Plan**
- 11.1 Details of the tree protection plan as highlighted on drawing CAD/QA/1515, 16
- 12.0 Site entrance/new drive**
- 12.1 The use of the existing double entrance access point along Worsbrough Road is to be utilized providing unlimited access to plot 2. This will allow vehicular site traffic to maintain a safe and measured distance outside the tree protection zones and remain within the construction exclusion zone of the site. This method is to be adopted at all times during the demolition and construction periods.
- 12.2 The new drive including any drop down kerbs, boundary walls or fences in connection with the dwelling are to be formed when the dwelling is complete.

### **13.0 Ground protection and scaffolding within any Root Protection Area**

- 13.1 The proposed positioning of the dwelling lies outside the nearest tree group 2. Therefore no additional protective measures are required. However if the site conditions depict the dwelling or its foundations to be closer to the tree group than designed, then site specific proposals must be submitted to the local authorities forestry officer for approval. To afford maximum protection and minimise the risk of damage to the existing root systems of T27, 28, 29, 30 & 39 during the construction phase of the dwelling.

### **14.0 Excavation and Foundation type (Phase 2 substructure dwelling)**

- 14.1 New dwelling to be as Building regulations deposit. Concrete strip foundation. Foundations have been designed to be adequate if bearing on a sub-soil type 4 as defined in the current building regulations. If a sub-soil of this type is not found at normal levels, an alternative foundation design based on a geotechnical soil investigation report to BS5930, BS8002, BS8004 and Euro code 7 is to be submitted. For any abnormal ground conditions contact the local building control surveyor for advice.
- 14.2 The dwellings foundations lay outside the theoretical root spread of the nearest tree group 2. Therefore no root barrier is required. If however root systems are found to exist when carrying out proprietary excavations, then a site specific root barrier must be installed, to prevent future disturbance to the sub and superstructures of the proposed dwelling.

### **15.0 Excavation and Foundation type (excavation)**

- 15.1 The initial method of excavation along the eastern foundation of the garage is to be with hand tools “**only no**” mechanical machinery is to be used until primary test excavations are carried out along the length of the proposed foundation. Only then if no roots are visible a mechanical method of excavation will be considered and advice sought from the local authority’s tree officer.
- 15.4 During the foundation excavations any damage to the bark surface of exposed larger roots should be minimised. Exposed larger roots over 25mm in diameter should be wrapped in clean dry Hessian sacking to prevent desiccation and buffer temperature variation. Smaller roots less than 25mm in diameter may be pruned back using clean bypass secateurs. Severing any root that exceeds 25mm in diameter may have an adverse effect upon the health of the tree.

15.5 The severing of any root above 25mm in diameter is prohibited. The accidental severing of root exceeding 25mm within a RPA or within 1metre margin is to be noted and advice sought with appropriate action taken.

## 16.0 Schedule for Works (Phase 1 demolition)

16.1 Table 1

Task	Prep	Construction	Comments
1	x		It is the responsibility of the owners and developers of the site, to identify all licences required for the demolition/use of skips etc, and emergence of construction traffic both in and out of the site.
2	x		Identify site access off Worsbrough Road shown on drg CAD/QA/1514. No tree surgery is required to facilitate access into the site.
3	x		Utilize existing hard surfacing within the site for access and turning of vehicles. (existing car park area)
4			Identify and establish an area inside the demolition zone to store and stock all spoil from the existing building
			Begin to import and erect protective fencing to all Tree groups
5	x		Licensed demolition contractor, to have an asbestos survey carried out, to establish if any asbestos is evident within or allied to the superstructure of the building. The survey must be carried out before any demolition work commences, by a suitably qualified surveyor.
6	x		If asbestos is found during the external and internal survey, the local authority and all other statutory regulatory bodies must be informed of :- <ol style="list-style-type: none"> <li>1. The area found and marked on a suitable plan.</li> <li>2. Identification of type.</li> <li>3. Mitigation/Removal procedures.</li> <li>4. On/off site containment &amp; disposal.</li> </ol>
7	x		Begin process of demolition of the existing building in a safe & controlled environment
8			Remove all demolition spoil from the site as required to continue with second phase

## 17.0 Schedule for Works (Phase 2 superstructure Dwelling)

17.1 Table 1

Task	Prep	Construction	Comments
1	x	x	Reposition protective fencing replace any damage panels as required after demolition works. To individual zones.
2	x		Treat all identified surfaces with glyphosate herbicide within the construction zone and prepare ground.
3		x	Identify site access off Worsbrough Road shown on drg CAD/QA/1514
4	x		Identify and peg out area for Dwellings foundation.
5		x	Excavate foundations for dwelling as note 15.0 "excavations and foundation type".
6		x	Erect first lift scaffold as required, as note 14.0
7		x	Identify all drainage and service runs. Set out accordingly and excavate, Outside root Protection areas with mechanical machine. No drainage to be inside the root Protection areas. Root barriers to be installed if required. See note 15.0.  Note all external rainwater gutters to be fitted with protective grilles to prevent blockages within the gutter system including down pipes.
8		x	Complete building process to dwelling.
9	x		Prepare to occupy main dwelling

## 18.0 Avoidance of tree root damage if trenching. (Informative Tree group 2)

18.1 Particular attention should be paid to tree group 2, east of the garage Due to the location of the dwelling services, trenching operations, will be, outside the periphery of the theoretical root spread and canopy of tree group 2 T27,28,29,30. However if incursion into the RPA is unavoidable, trenching will have to be carried out. By design it is not expected that trenching will be within the trees RPA. But care must be taken at all times when excavating any trench within this area and the following procedures adopted.

18.2 Any large roots discovered during trenching operations or exposed roots above 25mm in diameter are to be protected to avoid damage to the bark covering, and wrapped in dry clean hessian sacking to prevent desiccation and to protect from rapid temperature changes.

- 18.3 Any roots found within the excavation and less than 25mm in diameter may be pruned back, preferably to a side branch using an appropriate cutting tool such as bypass secateurs or hand saws and a root barrier installed.
- 18.4 If any root system is present and measures above 25mm in diameter the advice from a qualified arboriculturist must be sought as they may be essential to the trees health and stability.
- 18.5 Prior to any back filling any hessian sacking is to be removed and the retained root should be surrounded in sharp sand. (Standard building sand) is not to be used because of its high salt content which is toxic to tree roots.
- 18.6 All soils put back in the trench are to be free of contaminants or other foreign objects that could be injurious to the health of the tree root system.

## 19.0 Schedule for Works (Phase 3 trenching within a RPA to group 2)

19.1 Table 2

Task	Prep	Construction	Comments
1	x		Identify area within the calculated RPA from drawing CAD QA/1515 & 16
2	x		Remove and adjust protective fence as required to protect Tree T27,28,29,30
3	x		Peg outline of the new drain
4		x	Excavate trench for new private drain. The excavation is to be carefully done by hand within the RPA of group 2. On no account must mechanical machinery be used within the predicted root protection area where theoretical root spread has been predicted.
5		x	Remove excavated debris to outside of RPA and store for re-use. Excavated material to be checked for contaminants and foreign objects. Minimum fall for foul drainage 1:40.
6		x	Provide pea gravel to excavation to the current building regulations Part H, drainage
7		x	Provide Hepworth pvc drainage in single length throughout RPA
8		x	For added protection flexible root barrier to be installed around pipe.
9		x	Re install clean excavated material to current building regulation standard and to category 18.0.
10		x	Remove all excess constructional materials from the site and re-establish protective fencing to original position to protect group 2

## 20.0 Schedule for Works (Phase 4 drive parking area)

20.1 Table 3

Task	Prep	Construction	Comments
1	x		Identify and peg out the new drive and parking areas for private vehicle
2		x	Excavate for drive and parking area for private vehicle. Excavation is to be by hand near the boundary of tree group 1 on no account must mechanical machinery be used within the predicted root protection area where root spread has been predicted.
3		x	Identify all/any drainage and service runs.
4		x	Complete construction process to drive & parking area.
5		x	Form permanent access to site utilising the
6		x	Remove all constructional materials from the site and protective fencing

## 21.0 Schedule for Works (Phase 5 removal of pre-construction stilts within the RPA)

Task	Prep	Construction	Comments
1	x		Identify all existing raised steel stilts left in position from previous use.
2		x	Excavate stilts by hand within the RPA, (Note) on no account must mechanical machinery be used within the predicted root protection area where root spread has been identified.
3		x	Remove from site in an approved manor.
4		x	Replace protective fencing as required.

## 22.0 Schedule for Works (Phase 5 Landscaping to T1)

22.1 Table 3

Task	Prep	Construction	Comments
1	x		Client to identify and establish all areas pertaining to the new landscaping.
2	x		Clear the area of any established weeds using chemical/hand removal method in critical areas. Any control product should be fit for purpose and not containing sodium chlorate.
3		x	Lightly rake area and Peg out new areas for soft landscaping on site.
4	x		Ground levels on the site side are not to be raised and must follow the natural topography of the land.
5		x	No edging, kerbs or associated foundations/haunching to be used within the projected RPA. Edge to be left in a natural/feathered state.
6		x	Provide soft non compacted surface to area identified
7		x	Finish with hand rake to provide a level and homogeneous finish
8		x	Provide a suitable variety of replacement trees within the site for those removed from group1 and group 3
9	x		Advice and selected species to be discussed with the local authorities tree officer.

## 23.0 Considerations for new planting (General)

23.1 Trees generally form a dominant feature of long term landscape structures within a site. Careful consideration should be given to their:-

- Ultimate height.
- General crown spread.
- Shape.
- Colour.
- Foliage.
- Bulk.
- Maintenance.

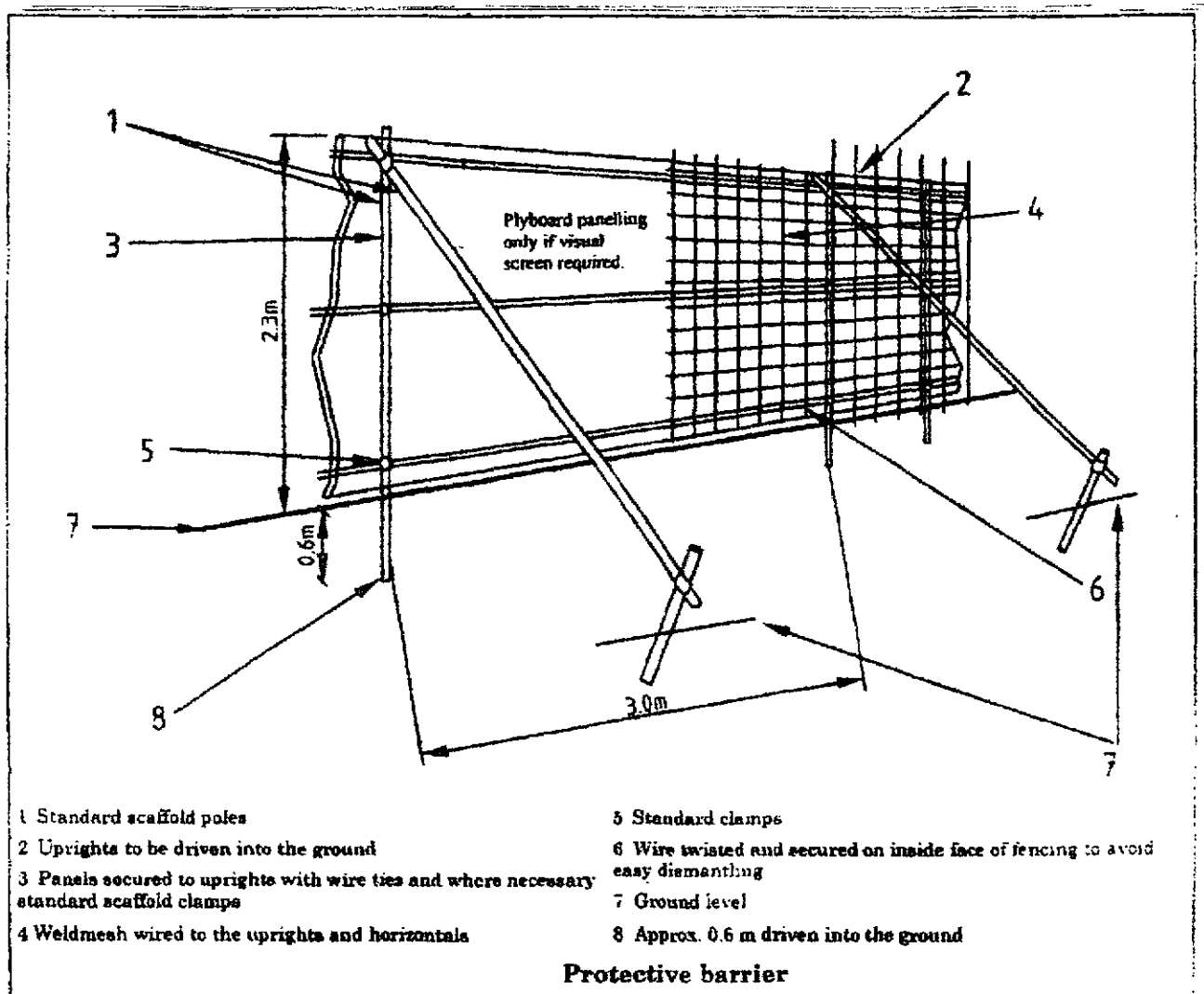
23.2 Trees also provide a range functions IE.

- Screening to provide privacy.
- Architectural effect to complement buildings.
- Inherent qualities.
- Aesthetic qualities, (shape, form, mass etc).
- Provide shade.
- Define spaces.
- Contribute to nature conservation and biodiversity etc.

## 24.0 APPENDIX 1

### 24.1 Tree Protection Fencing to BS 5837 : 2012

24.2 Note 4 refers to weldmesh panels; this will be substituted for Heras mesh panels.



## **25.0 APPENDIX 2**

### **25.1 MANAGEMENT OF STORAGE.**

**25.2** The storage of any construction/building materials within the RPA is strictly prohibited at all times.

**25.4** The construction/building materials shall be stored, on site within the construction zone as highlighted on drawing No CAD/QA/1516

**25.5** The storage area has to be in place before any deliveries or movement of constructional/building materials within the site takes place. All deliveries to the site are the responsibility of the house builder /owner of the site.

**25.6** All materials shall be stacked in a secure and safe manner within the pre-defined storage area, adopting the current best building practices and codes of practice for building sites.

**25.7** At no time must the access to the site or the public highway be infringed/ blocked by constructional/building materials/equipment etc allied to the site.

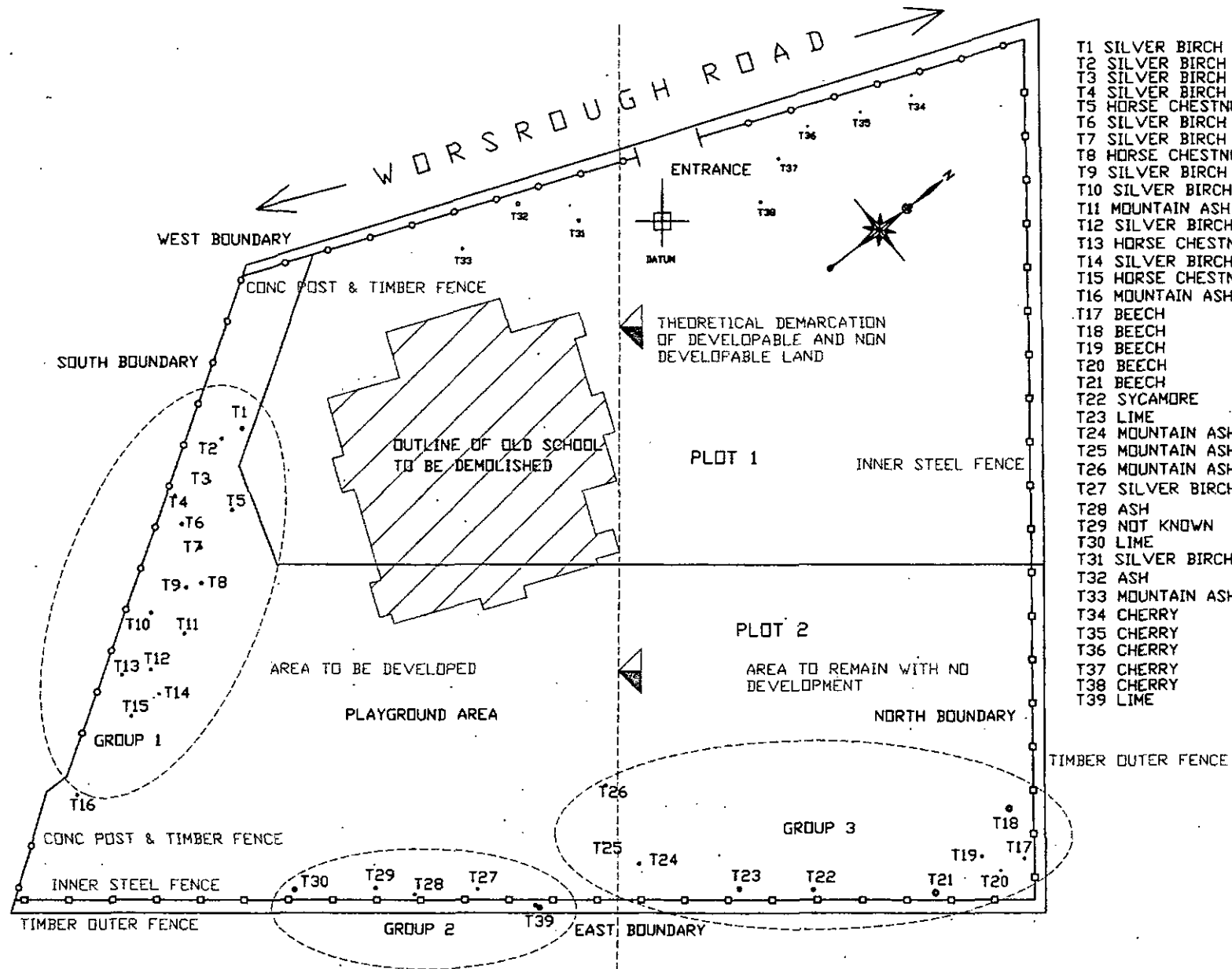
**25.8** No stacked constructional/building or other materials are to be positioned in such a way to infringe/impede or block the public walkway to Worsbrough Road.

**25.9** At all times any demolition materials deemed to be hazardous must to be stored in an appropriate marked, locked and sealed container throughout the demolition and construction phases, until such times the material can be removed from the site in a safe and controlled manor.

## **26.0 APPENDIX 3**

### **26.1 ARCHITECTURAL DRAWINGS.**

- **CAD/QA/1514 drawing showing whole site, with individual plots 1 & 2 inclusive of identification of existing trees and tree groups.**
- **CAD/QA/1515 site layout showing proposed trees to be removed in relationship to the new dwelling.**
- **CAD/QA/1516 shows the proposed site layout with protection zones, protective fencing, placement of warning signs, storage area, construction zone etc and replacement tree planting positions.**



- T1 SILVER BIRCH
- T2 SILVER BIRCH
- T3 SILVER BIRCH
- T4 SILVER BIRCH
- T5 HORSE CHESTNUT
- T6 SILVER BIRCH
- T7 SILVER BIRCH
- T8 HORSE CHESTNUT
- T9 SILVER BIRCH
- T10 SILVER BIRCH
- T11 MOUNTAIN ASH
- T12 SILVER BIRCH
- T13 HORSE CHESTNUT
- T14 SILVER BIRCH
- T15 HORSE CHESTNUT
- T16 MOUNTAIN ASH
- T17 BEECH
- T18 BEECH
- T19 BEECH
- T20 BEECH
- T21 BEECH
- T22 SYCAMORE
- T23 LIME
- T24 MOUNTAIN ASH
- T25 MOUNTAIN ASH
- T26 MOUNTAIN ASH
- T27 SILVER BIRCH
- T28 ASH
- T29 NOT KNOWN
- T30 LIME
- T31 SILVER BIRCH
- T32 ASH
- T33 MOUNTAIN ASH
- T34 CHERRY
- T35 CHERRY
- T36 CHERRY
- T37 CHERRY
- T38 CHERRY
- T39 LIME

CLIENT  
 MR & MRS J ARKWRIGHT  
 36 VERNON STREET  
 BARNSELY, SOUTH YORKSHIRE

TITLE  
 DRAWING SHOWING PLOTS 1 & 2 WITH TREE TYPES  
 AND POSITIONS



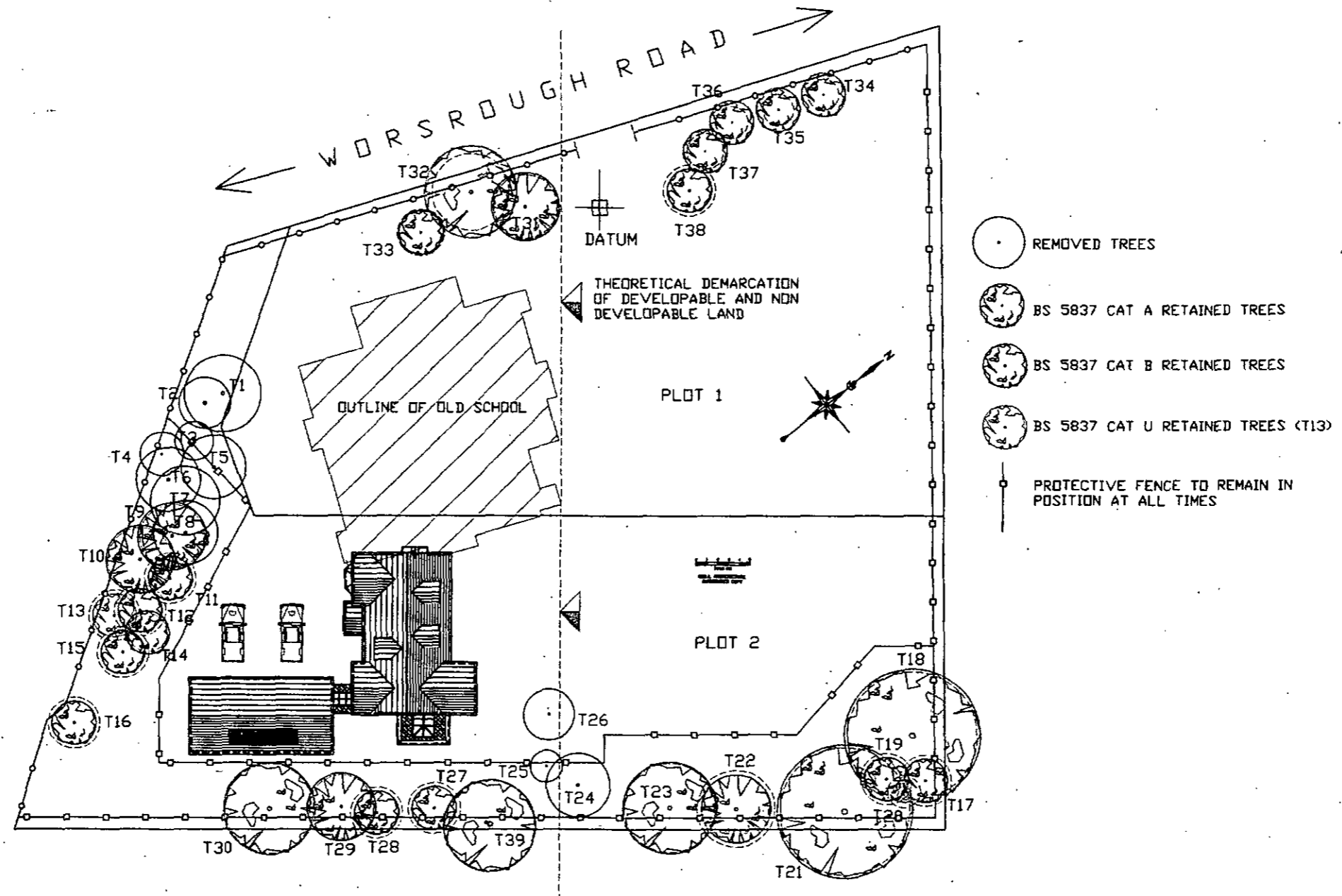
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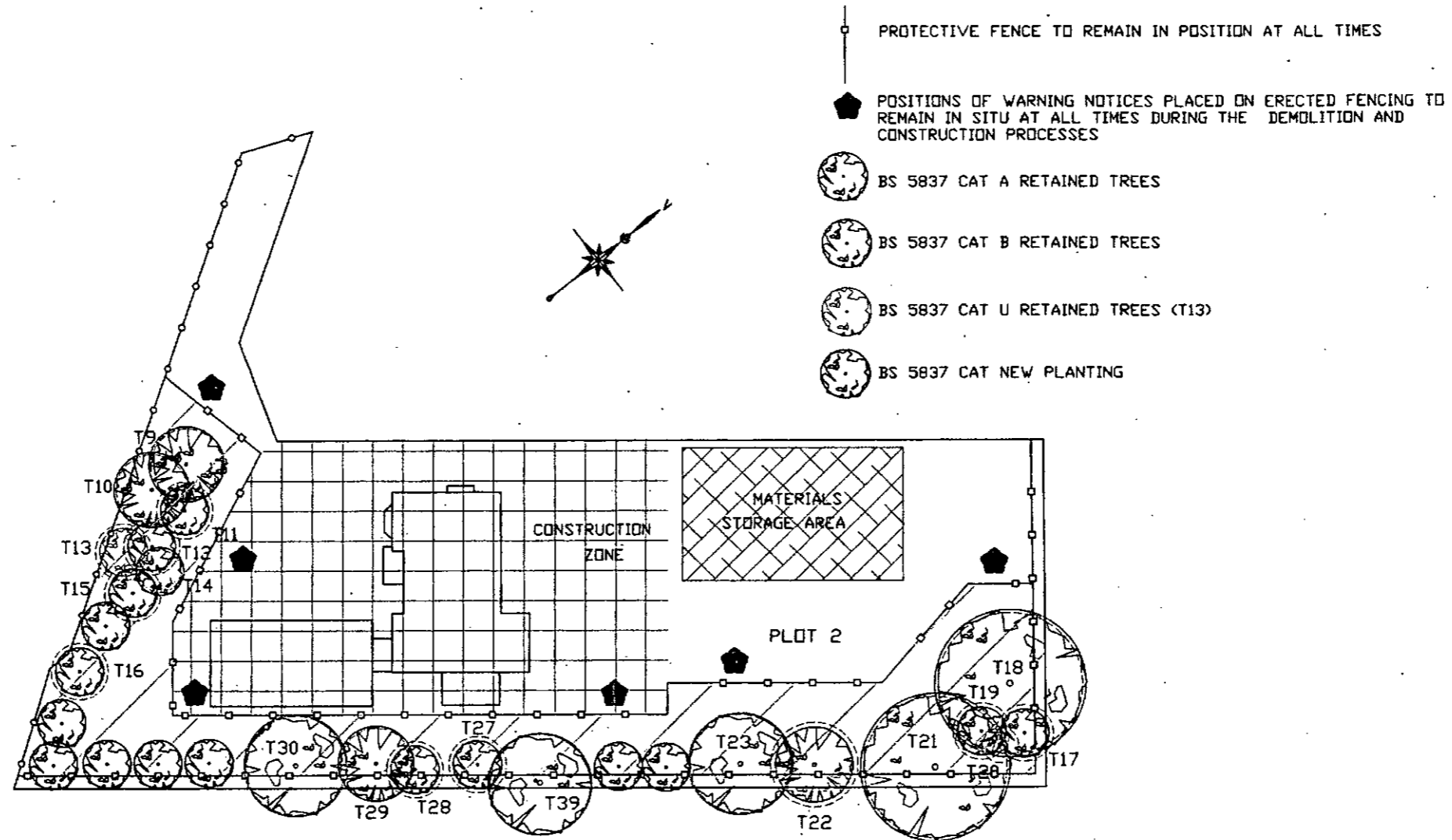
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TITLE  
 DRAWING SHOWING PLOTS 1 & 2 WITH TREES TO BE  
 REMOVED & RETAINED TREES.

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TITLE  
 DRAWING SHOWING PLOTS 1 WITH TREES REMOVED,  
 RETAINED TREES, & NEW PLANTING, PROTECTIVE  
 FENCE & POSITION OF SIGNAGE



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## **27.0 APPENDIX 4 (Informative)**

- 27.1 General : Trees in any location may be protected by legislation, where any development is proposed; additional legal protection may be appropriate and can be enforced by the local authority. Attention is drawn to legal controls under common law for consideration at the earliest stages of potential site development.
- 27.2 Legal protection of trees: The Town & Country Planning Act 1990 (as amended) require that, except in certain circumstances “no work will be carried out which will affect trees over a certain size which are situated in conservation areas/green belts. A min of six weeks’ notice has to be given to the local authority before the work is carried out. This provided an opportunity for the governing local authority to make a tree preservation order under this act, to protect the trees.
- 27.3 Tree preservation orders allow for trees to be protected either as individuals, groups, areas or woodlands. The orders have the effect of preventing the cutting down, topping, uprooting wilful damage of wilful destruction of trees, except in certain circumstances, other than with consent from the local authority.
- 27.4 Even when no specific legal protection exists, it may be necessary to obtain a felling licence. These apply if the volume of timber exceeds specific amounts; site clearance, even of small areas, before detailed planning permission has been granted could exceed the felling licence quota. The forestry commission under the forestry Act 1967 (as amended) administers a felling licence.
- 27.5 Section 197 of the Town and Country planning Act states “It shall be the duty of the local planning authority to ensure whenever it is appropriate, that in granting planning permission for any development adequate provision is made, by the imposing of conditions, for the preservation of the planting of trees”. It also states that “it shall be the duty of the local planning authority to make such orders under section 198 of the act as appear to the authority to be necessary in connection with the grant of such permission.

**28.0 Wildlife (general)**

28.1 It is the responsibility of the owners and developers of the site to ensure that no endangered species or their roosts are present within the existing structure or trees within the site area.

28.2 The presence of a protected species is a material consideration when a local planning authority is considering a development proposal which, if carried out, would be likely to result in harm to the species or its habitat.

(The Wildlife and Countryside Act 1981(as amended), the conservation (Natural Habitats etc) Regulations 1994 and the Countryside and Rights of way Act 2000 protect species of flora and fauna.

28.3 The protection of bats makes it illegal to intentionally injure or kill a bat, or cause damage, disturb or obstruct access to a roost. Under the Countryside and Rights of way Act 2000, it is an offence to recklessly disturb bats or recklessly damage or obstruct access to any structure or place that bats use for shelter or protection. Where any bats are found or evidence to suggest bat activity consultation with Natural England licence holder must be undertaken.



Signed .....

Date 23<sup>rd</sup> February 2015

On behalf of Quill Architecture