



ARBORICULTURAL IMPACT ASSESSMENT

Site at:
Former Bull & Monkie PH
Churchgate
Spalding
Lincolnshire
PE11 2RA

Job ref	Report Version	Author	Checked	Date
ATS0552	V1	IL	IL	May 2023





Ian Lorman

Relevant Qualifications

Professional Diploma in Arboriculture (Royal Forestry Society)

National Diploma in Arboriculture

National Certificate in Horticulture (Arboriculture Module)

Professional Membership

I have been a Fellow Member of the Arboricultural Association since 2013

Membership number FE1030



Experience

My career started in 1991 from craft level in arboriculture, to student, and then working in closely related industries to working as an Arboricultural / Trees Officer in five different local authorities. I have been practicing arboricultural consultancy for several years.





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Additional documents attached

Images – Examples of tree protective fencing, track mats & no-dig surface

Tree survey schedule (13th April 2022)

Tree constraints & removals plan (site as existing) 1:200 @ A2

Tree protection plan (demolition & site preparation) 1:200 @ A1

Tree protection plan (phase 1 following demolition) 1:200 @ A1

Tree protection plan (phase 2 construction) 1:200 @ A1



1 Limitations

1.1 The content of this report is valid for one year from the date shown on the title page.

1.2 Trees

1.2.1 The tree survey has been undertaken from ground level using non-invasive methods. The presence of Ivy, epicormic shoots or other climbing plants on tree trunks and branches obscures any defects that might be present that could otherwise be identified. In the presence of climbing plants etc assumptions are made based upon the general health and appearance of trees, which may differ fundamentally if Ivy etc were not present. For example, a tree that has the overall appearance of good health and vigour may have a serious structural defect hidden by climbing plants.

1.3 Tree Law

1.3.1 Details of Tree Preservation Orders and Conservation Areas have been obtained from the website of South Holland District Council.

1.4 Wildlife

1.4.1 Before carrying out tree works, it is necessary to observe laws in respect of protected species and habitats. Various habitats and species of animal in the UK are protected by the following pieces of legislation:

- Wildlife and Countryside Act 1981(as amended)
- Natural Environment and Rural Communities Act 2006 (NERC Act)
- Conservation of Habitats and Species Regulations 2010 (as amended)
- Protection of Badgers Act 1992
- The Hedgerows Regulations 1997
- Countryside and Rights of Way Act 2000

All tree work operations must comply with The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000, which provide statutory protection to birds, bats, and other species, all of which could inhabit trees. Where works may constitute an offence, advice will be required from a suitably qualified person before works are able to proceed. For example, it may be necessary to



programme tree work outside of the bird nesting period, typically March through to August inclusive.

1.5 Non-disclosure Notice

- 1.5.1 The content and layout of this report are owned by the author. This report may not be copied or used without the author's agreement for any purpose other than the purpose indicated in this report.

1.6 Third Party Disclaimer

- 1.6.1 The report was prepared by the author at the instruction of and for the use by, the client. The author provides this advice without prejudice and bases his opinions on knowledge, experience, qualifications, and published research and cannot be held responsible for the consequences of a difference of opinion held by third parties, for example the Local Planning Authority or Planning Inspector. The author does not accept liability for any loss or damage arising from reliance on the content of this report.

1.7 Status

- 1.7.1 This is not a design or method statement or a tree safety report. This report has been prepared to consider the potential impact of a proposed development upon trees and their juxtaposition with the layout. The report makes recommendations which may have implications for design, construction, materials, and methods to be employed in construction. Any such recommendations should be approved by the appropriate responsible parties.



2 Brief

- 2.1 This report was requested by the client on 29th March 2022. The site visit and tree survey were conducted on 13th April 2022.
- 2.2 I am instructed to provide a report to accompany a planning application to South Holland District Council (SHDC) in accordance with British Standard BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations' as to the impact of a proposed development upon trees and how any impact may be avoided or mitigated where possible. The advice herein takes the form of an arboricultural impact assessment report with tree survey, tree constraints & removals plan and three tree protection plans that cover demolition and construction phases.



3 Executive Summary

- 3.1 One tree is proposed to be removed directly to facilitate the scheme.
- 3.2 The efficacy of tree protection during implementation is dependant on the recommendations in this report being strictly applied, especially the order of operations stated on the tree protection plans.
- 3.3 An Arboricultural Method Statement (AMS) will be required for new, permanent hard surfaces beneath tree number 4. This requires non-standard no-dig construction.
- 3.4 During demolition, site preparation and construction, the trees can be effectively protected from harm by using robust temporary fencing and track mats. Examples of the type of fencing and track mats is provided at the end of this report.
- 3.5 The juxtaposition of trees with the proposed layout is suitable, and represents a similar situation to the previously approved scheme.
- 3.6 Trees retained would be largely unharmed if the advice in this report is heeded.



4 Tree Survey Methodology

- 4.1 The trees have been assessed in accordance with British Standard BS 5837: 2012 'Trees in relation to design, demolition and construction – Recommendations'.
- 4.2 The British Standard divides trees into one of four categories (based on the cascade chart for tree quality assessment – Table 1 in the Standard). These are classed as U, A, B or C (Section 4.5 of BS5837). This gives an indication as to the tree's quality. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below). Categories A, B and C cover trees that might be a material consideration in the development process, each with three further sub-categories (1, 2 or 3) which are intended to reflect arboricultural, landscape and cultural (including conservation) values. Category U trees are those which would be lost in the short term for reasons usually connected with their physiological or structural condition. In assigning trees to the A, B or C categories, the presence of any serious disease or tree-related hazards are taken into account. If the disease is considered fatal and / or irremediable, or likely to require sanitation for the protection of other trees it may be categorised as U, even if they are otherwise of considerable value.
- 4.3 Category 'U'. (Dark Red): Trees for removal are those trees in such a condition that any existing value would be lost within 10 years and which should in the current context be removed for reasons of sound arboricultural management. Trees within this category are:
- i. 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;
 - ii. Trees that are dead or are showing signs of significant, immediate or irreversible overall decline;



- iii. Trees infected with pathogens of significance to the health and or/safety of other trees nearby trees or very low-quality trees suppressing adjacent trees of better quality.

4.4 Category 'A'. (Green): are trees whose retention is most desirable and are of high quality and value. These trees are considered to be in such a condition as to be able to make a lasting contribution (at least 40 years) and may comprise:

- i. Trees which are particularly good examples of their species especially rare or unusual, or essential components of groups or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue);
- ii. Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features,
- iii. Trees, groups or woodlands of significant conservation, historical, commemorative or other value (eg. veteran trees or wood-pasture trees).

4.5 Category 'B'. (Blue): are trees whose retention is considered desirable and are of moderate quality. These trees are considered to be in such a condition as to make a significant contribution (at least 20 years) and may comprise:

- i. Trees that might be included in category A, but because of their numbers or slightly impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage), are downgraded in favour of the best individuals;
- ii. Trees present in numbers such that they form distinct landscape features and attract a higher collective rating than they would as individuals or trees occurring as collectives but situated so as to make little visual contribution to the wider locality;
- iii. Trees with material conservation or other cultural value.



- 4.6 Category 'C'. (Grey): are trees that could be retained and are considered to be of low-quality. They have a life expectancy of at least 10 years or are young trees with a stem diameter below 150mm and may comprise:
- i. Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories;
 - ii. 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 screening benefits;
 - iii. Trees with no material conservation or other cultural value.
- 4.7 Crown spreads have been measured in metres and taken for the four cardinal points where necessary and where access permits. The measurements are always considered in the following sequence: north, east, south and west, and therefore appear as such within the tree survey schedule. Where access is not available dimensions are estimated.
- 4.8 In the assessment particular consideration has been given to the following when considering the appropriate BS Category and Sub-Category allocation:
- i. the health, vigour and condition of each tree;
 - ii. the presence of any structural defects in each tree and its remaining contribution in years (i.e. future life expectancy);
 - iii. the size and form of each tree and its suitability within the context of a proposed development for the land use;
 - iv. the location of each tree relative to existing site features, e.g. its value as a screen or as a skyline feature.
- 4.9 Age class is assessed according to the age class categories referred to in BS 5837.

Young trees

Early-mature, trees less than 1/2 life expectancy.

Mature trees up to 2/3 life expectancy.



Over-mature, declining or moribund trees of low vigour.

Veteran trees

- 4.10 The physiological condition of the tree, or group of trees, has been referred to as one of the following:

Good: A sound tree, trees needing little, if any, attention.

Moderate: A tree, trees, with minor but rectifiable defects or in the early stages of stress, from which it may recover.

Poor: A tree, trees, with major structural and physiological defects or stressed such that it would be very expensive and inappropriate to retain.

Dead: A tree or trees, no longer alive. However, this could also apply to those trees that are dying and will be unlikely to recover, or are / have become dangerous.

- 4.11 Major defects or diseases and relevant observations have also been recorded under Structural Condition within the Tree Schedule. The assessment for structural condition has included inspection of the following defects:

- The presence of fungal fruiting bodies around the base of the tree or on the stem, as they could possibly indicate the presence of possible internal decay.
- Soil cracks and any heaving of the soil around the base indicating possible root plate movement.
- Any abrupt bends in branches and limbs resulting from past pruning, as it may be an indication of internal weakness and decay.
- Tight or weak 'V' shaped forks and co-dominant stems
- Hazard beam formations and other such biomechanical related defects (as described by Claus Mattheck, Body Language of Trees HMSO Research for Amenity Trees No. 4 1994).
- Cavities as a result of limb losses or past pruning.
- Broken branches



- Storm damage
- Canker formations
- Loose bark
- Damage to roots
- Basal, stem or branch / limb cavities
- Die-back in the crown
- Abnormal foliage size and colour
- Any changes to the timing of normal leaf flush and leaf fall patterns
- Other pathological diseases affecting any part of the tree

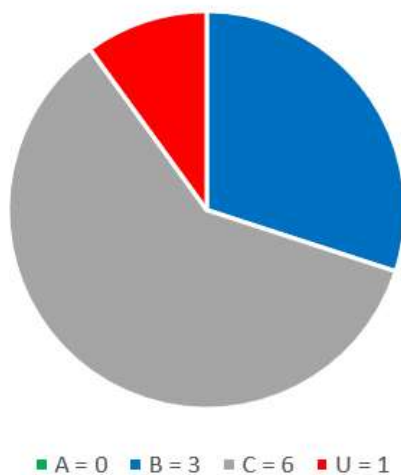


5 Results of Tree Survey

5.1 Ten trees were recorded. Only two of the trees are located within the application site. The trees are listed in the tree survey schedule as trees 1 to 10. Tree locations are identified on the tree constraints & removals plan. The tree protection plans only show the trees to be retained.

- Below: Individual trees – Distribution of qualitative grading according to BS5837

Fig. 1. Number of trees per grade





6 General Description of Site and Surroundings

6.1 The site comprises a dilapidated former public house set within a large tarmac car park and extends to an area of approximately 0.64 acres. Topography is varied, with a pronounced high point in the north eastern corner. Access to the highway (Churchgate) is located on the western boundary. Two low-quality Sycamore trees are located within the application site, and are of little importance. Other much more significant trees are located on adjoining land to the north, east, and southern boundaries.

- Below: Tree 1 (Sycamore) – a sprouted stump to be removed





- Below: Tree 1 (Sycamore) - to be removed



- Below: Tree 2 (Sycamore)





- Below: Tree 3 (Sycamore) – Off site



- Below: Tree 6 (Sycamore) – Off site





- Below: Trees 7 (Beech), 8 (Birch) & 9 (Horse Chestnut) – Off site



- Below: Tree 10 (Horse Chestnut) - Off site





7 Description of the Proposed Development

- 7.1 Construction of a new care home development including amenity areas and vehicular parking.
- 7.2 Significant efforts have been made to serve the existing trees well. The tree survey was undertaken in April 2022, and since then various iterations of the layout have been reviewed and amended to better serve the trees, resulting in the proposals presented now.



8 Legal Constraints

8.1 Tree Preservation Orders

8.1.1 The trees numbered 7 to 10 (inclusive) are covered by a TPO.

8.2 Conservation Area

8.2.1 The site is located within Spalding Conservation Area.

- Below: Screenshot of TPO search at SHDC. The green circles represent TPOs. Search date : 22nd April 2022



8.3 ALL OF THE TREES ARE LEGALLY PROTECTED. Conservation Area status affords legal protection to all live trees that exceed 75 millimetres trunk diameter (measured at 1.3 metres above ground level). Conservation Area status is ostensibly the same as that afforded to trees covered by Tree Preservation Order (TPO) and the same offences and penalties apply.

8.4 Penalties for offences relating to TPO trees include, but are not exclusive to, lopping, topping, damaging, or destroying trees which can be unintentionally done by such



simple means as damaging the soil structure around the trees during demolition, site preparation or building work.

- 8.5 The effect of a Tree Preservation Order is that a formal application will normally need to be submitted to the local planning authority (LPA) (subject to exceptions) for tree works. Such an application may be refused, approved, or approved subject to conditions. There is a right of appeal against refusals, conditions, or non-determination. In all cases, unauthorised work or wilful damage or destruction etc is a criminal offence, on summary conviction leading to fines of up to £20,000 per tree and on indictment, to an unlimited fine and / or imprisonment. All trees are a 'material consideration' in the town planning context and extra weight is normally given to those the subject of the above statutory protection. Where TPOs are applied, it is imperative that the LPA is consulted with respect to any activities that affect trees whether directly or indirectly. In addition, before removing any trees a check should be made with the Local Planning Authority to ascertain if extant planning conditions affect trees on the site.
- 8.6 The granting of full planning permission (not outline) allows works to be undertaken to protected trees (TPO & Conservation Area) as far as is necessary in order to implement that permission. For example, if the approved plan shows the footprint of a new building where a protected tree is located, you may remove that tree for the purpose of implementing the extant planning permission (but for no other reason) without the need to make a separate tree work application to the Local Planning Authority.



9 Arboricultural Impact Assessment

9.1 Trees to be removed to implement the development.

9.1.1 One tree is to be removed. This is a Sycamore that comprises multiple stems that have sprouted from a stump. It has negligible amenity value. It does not contribute to the special character of the Conservation Area.

9.2 Impact of tree removals

9.2.1 The removal of the sprouted Sycamore stump will have no impact to amenity.

9.3 Other trees indirectly affected by proposals

9.3.1 It must be born in mind that the RPAs of all of the retained trees are already subject to hard surfaces or other structures on the application site. These features must first be removed prior to construction of the layout.

9.3.2 The layout has been carefully designed to minimise encroachment into RPAs. This careful design process had resulted in only soft and hard landscaping being proposed within trees' RPAs. In all cases this represents an improvement to the environment for the trees.

9.3.3 The RPA of tree 2 (Sycamore) will be transformed into soft landscaping (lawn and ground cover planting).

9.3.4 Tree 3 (Maidenhair) will be entirely unaffected.

9.3.5 A significant proportion of the RPA of tree 4 (Sycamore) will become a new, permanent hard surface. This will be formed using a proprietary, permeable 'no-dig' system in conjunction with an Arboricultural method statement.

9.3.6 Trees 5 & 6 (Sycamore) can be viewed as a single entity due to their extremely close proximity. Their RPAs will be transformed into soft landscaping (lawn and ground cover planting) but with a small area of new hard surface. The area of hard surface concerned is not large enough to cause significant harm to either tree. It is therefore not justified to go to the expense and complexity of using a proprietary 'no-dig' system.

9.3.7 There is extremely minor encroachment of construction into the RPA of tree 7. The remainder of the RPA will be transformed into wildflower meadow.



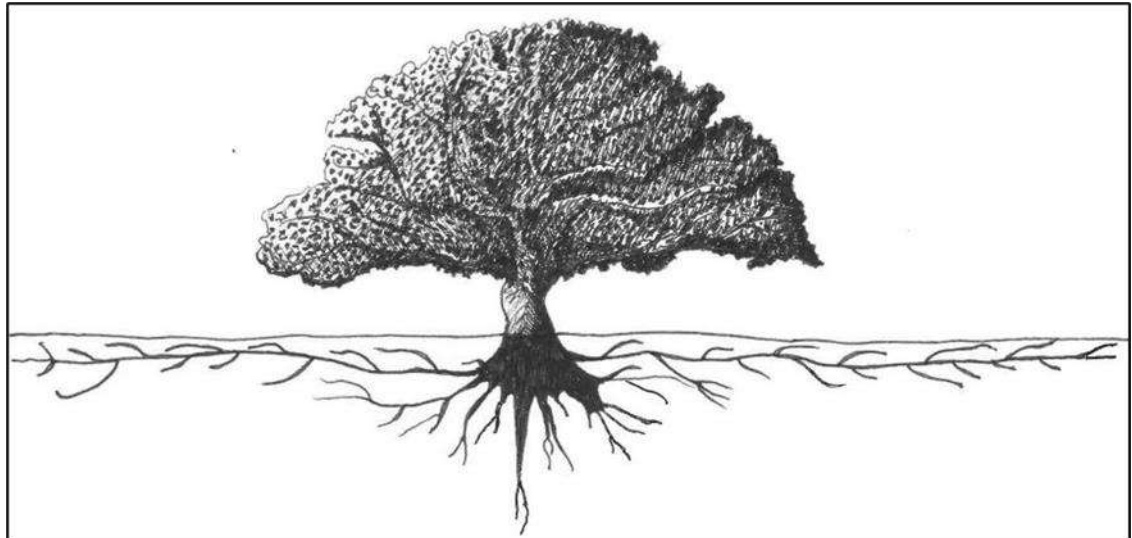
- 9.3.8 Trees 8 (Birch) and 9 (Horse Chestnut) are barely affected, and only in a positive way.
- 9.3.9 Tree 10 (Horse Chestnut) is an important tree at the junction of Churchgate and The Vista. The RPA here will be subjected to the existing tarmac surface being taken up, and then replaced by a combination of soft and hard surfaces (path and terrace). There will be no additional excavation within the RPA.
- 9.3.10 The tree protection measures are described in detail on the attached tree protection plans.
- 9.4 Evaluation of tree constraints

i. Below ground constraints – Root Protection Areas

- The root systems of trees present a critical constraint which is often overlooked or ignored because roots cannot be seen beneath the soil surface. The most valuable part of the root systems for maintaining health and structural anchorage of trees is mostly located in the upper 600 millimetres of the soil profile. The British Standard uses a formula to calculate these nominal areas on the ground which are referred to as the 'root protection area' (RPA). The RPA is determined by multiplying a factor by the stem diameter depending on the form of the tree (see section 4.6 and Figure C.1 of the Standard). The calculated figure provides a measurement of the radius from the centre of a tree trunk to form a nominal circle; all the ground within this radius is the RPA. This is often quoted in metres squared. RPAs may not be 'offset' to one side unless there is arboricultural justification to do so. The plans in this report show the RPA as an orange polygon.



- Below: Diagram showing typical root morphology of a mature tree growing in homogenous ground conditions



9.4.1 The minimisation of harm to tree roots within the RPAs would be achieved by a combination of temporary tree protective fencing and temporary ground protection in the form of track mats to prevent soil compaction caused by repeated passage of machinery and storage of materials.

9.4.2 Works within Root Protection Areas (RPA) - Summary

- The efficacy of tree protection is dependent on following the order of operations listed on the three tree protection plans which are arranged in the correct order in this report. These cover the phases from demolition through to completion.

9.4.3 Tree pruning

- None.
- ii. Sunlight, shading, and dominance
 - The proposed development maintains the *status quo* in relation to the previously approved scheme.



10 Arboricultural Method Statement – Heads of Terms

10.1 British Standard BS5837 recommends that an AMS be provided and observed in respect of engineering operations to be undertaken within RPAs of retained trees. To ensure efficacy of tree protection when working within RPAs an AMS should be provided for the following item:

- i. Permanent hard surface beneath tree number 4



11 Conclusions

- 11.1 The loss of a single insignificant Sycamore tree within the application site will have no impact to amenity and the special character of the Conservation Area.
- 11.2 Temporary tree protection measures during demolition and implementation will ensure that harm to the retained trees is minimised to an acceptable level, and in many cases the environment will be improved for the trees.
- 11.3 The current proposals have a lesser impact on trees than the previously approved scheme.
- 11.4 There should be no Arboricultural impediment to the approval of the application, subject to conditions.



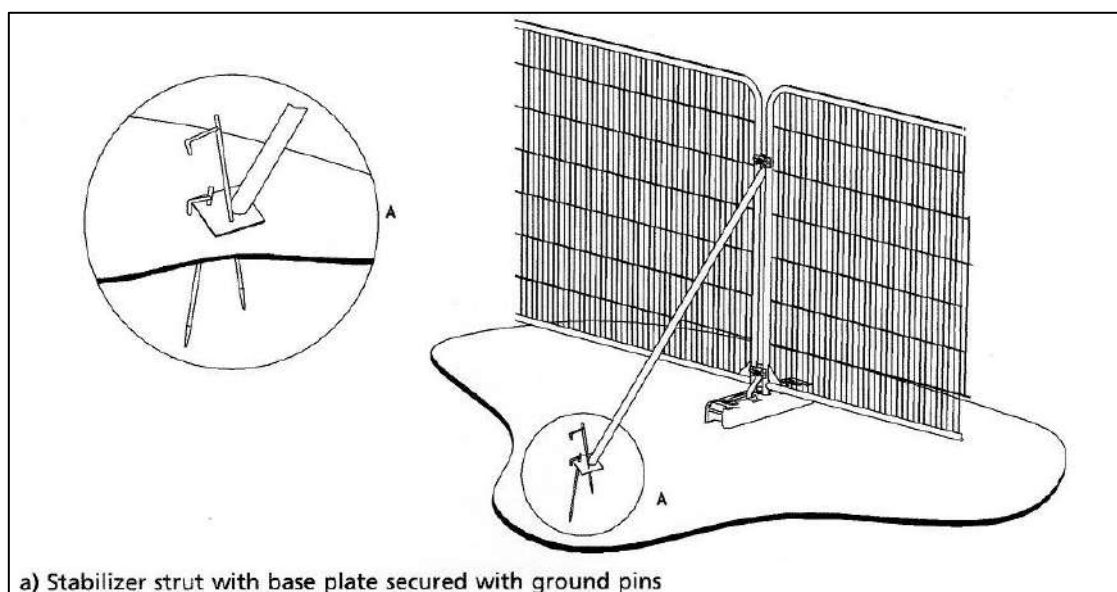
12 Normative References

12.1 The following documents are indispensable in the application of the recommendations in this report:

- British Standard BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- British Standard BS3998:2010 'Tree Work - Recommendations'
- Managing Trees During Construction - International Society of Arboriculture (second edition) 2016
- Site layout planning for daylight and sunlight: a guide to good practice (BR209) – Building Research Establishment



- Below: Example of tree protective barrier – Support struts on tree side



- Below: Example of tree protective fencing installed correctly





- Below: Example of heavy-duty track mats in-situ. Here, Groundguards Maxitrack shown. This would be used as temporary ground protection beneath tree number 4 prior to installation of the permanent hard surface





- Below: Examples of Geosynthetics Ltd 'Cellweb' installation for a 'no-dig', permeable hard surface, suitable for installation within the RPA of tree 4. Permeable block paving (e.g. Marshall Priora) or permeable tarmac (Tarmac Dry) can be used as a wearing course instead of gravel





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Signed:

Ian Lorman

Director

May 2023



LEGEND TO TREE SURVEY FORM

Tree number/Tag	Number or tag fixed to tree or given number on plan where no tag has been used. Given number for groups (G), hedges (H) or shrubs (S). Individual trees will have no tag if located on adjoining land or inaccessible Note: Tags are only used occasionally, to draw attention to a particular tree or trees when they might otherwise be difficult to locate on the ground without a number physically attached to them
Species	Tree species - Common name or botanical name if no common name is in common use
Tree height	Height in metres where measurement is possible using a laser clinometer. Estimated where tree is inaccessible or where it is not possible to see the top and bottom of the tree simultaneously to take a measurement
Stem Dia(s)	Trunk diameter measured at 1.5 metres above ground level (on the side of the tree where the ground is highest). Where there are multiple stems, measurements are made for each stem
RPA radius	Root Protection Area radius in metres (linear) measured from centre of tree trunk. Formulae apply to multiple stemmed trees with up to 5 stems and trees with more than 5 stems. NOTE: For single stemmed trees the RPA is 12 x trunk diameter up to a maximum of 15 metres. For 'veteran' trees the RPA can be greater than 15 metres
RPA m²	Root Protection Area in square metres. Formulae apply to multiple stemmed trees with up to 5 stems and trees with more than 5 stems. NOTE: For single stemmed trees the RPA is 12 x trunk diameter up to a maximum of 707 metres ² . For 'veteran' trees the RPA can be greater than 707 metres ²
Crown spread	Spread of tree crown (branches) in metres at each cardinal point (NESW) measured from tree trunk using a laser rangefinder. Estimated where inaccessible
1st large branch height above ground	The height in metres on the tree of the lowest major branch and its direction (where relevant)
Canopy height above ground	Headroom - The height above ground in metres of the lowest part of the tree crown / branch ends (where relevant)
Life stage	The estimated stage of life of the tree in relation to its species. e.g. A Silver Birch may be considered 'mature' at 40 years, but Oak may be considered to be in early maturity at the same chronological age.
Observations; structural / physiological condition and any preliminary recommendations	The condition of the tree in relation to the presence of any notable structural defects or ill-health and any recommendations that may be relevant to good arboricultural management or in relation to a proposed development Note: Sometimes defects in trees such as cavities and splits can be viewed as beneficial because of their ecological value, especially on 'veteran' trees
Estimated remaining contribution	An estimated range of the minimum number of years a tree may make a positive contribution before it falls into decline (senescence). This is recorded as <10 years, 10+ years, 20+ years or 40+ years
Category & Sub-category	A qualitative grading. See Table 1 (page 9) of BS5837:2012

Site name: Former Bull & Monkie PH, Churchgate, Spalding
Surveyor: Ian Lorman

Date of survey: 13th April 2022
Conditions: Clear / dry / still



Tree number/Tag	Species	Tree height	Stem Dia (s)	RPA Radius	Crown spread	1st large branch height above ground	Canopy height above ground	Life stage	Observations; structural / physiological condition and any preliminary recommendations	Estimated remaining contribution	Category & Sub category
				RPA m2							
1	Sycamore	10	100 100 100 100 100	2.68 23	N 3.5 E 3.5 S 3.5 W 2.5		0	Mature	Sprouted stump. Growing on top of a crumbling retaining wall Physiological condition - Poor ▪ Fell to implement development	10+	C1
2	Sycamore	11	300	3.60 41	N 4.5 E 4.5 S 2.5 W 2		2.5	Mature	Large wound on trunk at southwest side from 1 metre to 2.5 metres with exposed sapwood and internal decay. Low vigour. Interfering with telephone line Physiological condition - Poor ▪ No action	10+	C1
3 (off site)	Maidenhair Tree	5	100	1.20 5	N 2 E 2 S 2 W 2			Young	Growing on much higher land behind retaining wall Physiological condition - Good ▪ No action	40+	C1
4 (off site)	Sycamore	13	500	6.00 113	N 5 E 5 S 5 W 5		8	Mature	Heavily crown-lifted. Low vigour. Trunk bifurcates into a pair of co-dominant stems at 3 metres above ground level. Ivy on trunk. Growing on slightly higher land behind brick retaining wall which it is pushing over Physiological condition - Poor ▪ No action	20+	C1
5 (off site)	Sycamore	13	250	3.00 28	N 6 E 0.1 S 3 W 6		4	Mature	Self-set. Heavily suppressed by tree 6 Physiological condition - Moderate ▪ No action	20+	C2
6 (off site)	Sycamore	13	400 300 300	7.00 154	N 7 E 6 S 6.5 W 6.5		5	Mature	Trunk divides into three stems close to ground level. Dense Ivy on trunk and branches up to mid crown. Behind retaining wall which looks recently repaired Physiological condition - Moderate ▪ No action	20+	C1
7 (off site)	Common Beech	21	850	10.20 327	N 8.5 E 9 S 8.5 W 8.5		2	Mature	Trunk divides into three co-dominant stems at 3 metres above ground level with bark included union Physiological condition - Good ▪ No action	40+	B1

Site name: Former Bull & Monkie PH, Churchgate, Spalding
Surveyor: Ian Lorman

Date of survey: 13th April 2022
Conditions: Clear / dry / still



Tree number/Tag	Species	Tree height	Stem Dia (s)	RPA Radius	Crown spread	1st large branch height above ground	Canopy height above ground	Life stage	Observations; structural / physiological condition and any preliminary recommendations	Estimated remaining contribution	Category &Sub category
				RPA m2							
8 (off site)	Silver Birch	17	350	4.20	N 4.5 E 5.5 S 4.5 W 4.5		5	Mature	No notable defects Physiological condition - Good ▪ No action	20+	B1
				55							
9 (off site)	Common Horse Chestnut	13	725	8.70	N 8.5 E 7.5 S 7.5 W 7			Mature	Severe chronic bleeding canker disease and advanced decay in major branches Physiological condition - Poor ▪ No action	<10	U
				238							
10 (off site)	Common Horse Chestnut	14	575	6.90	N 6.5 E 8 S 7 W 6		2	Mature	Chronic but non-severe bleeding canker disease Physiological condition - Moderate ▪ No action	20+	B1
				150							

Former Bull & Monkie PH, Churchgate, Spalding, Lincs
Tree constraints & removals (existing layout)

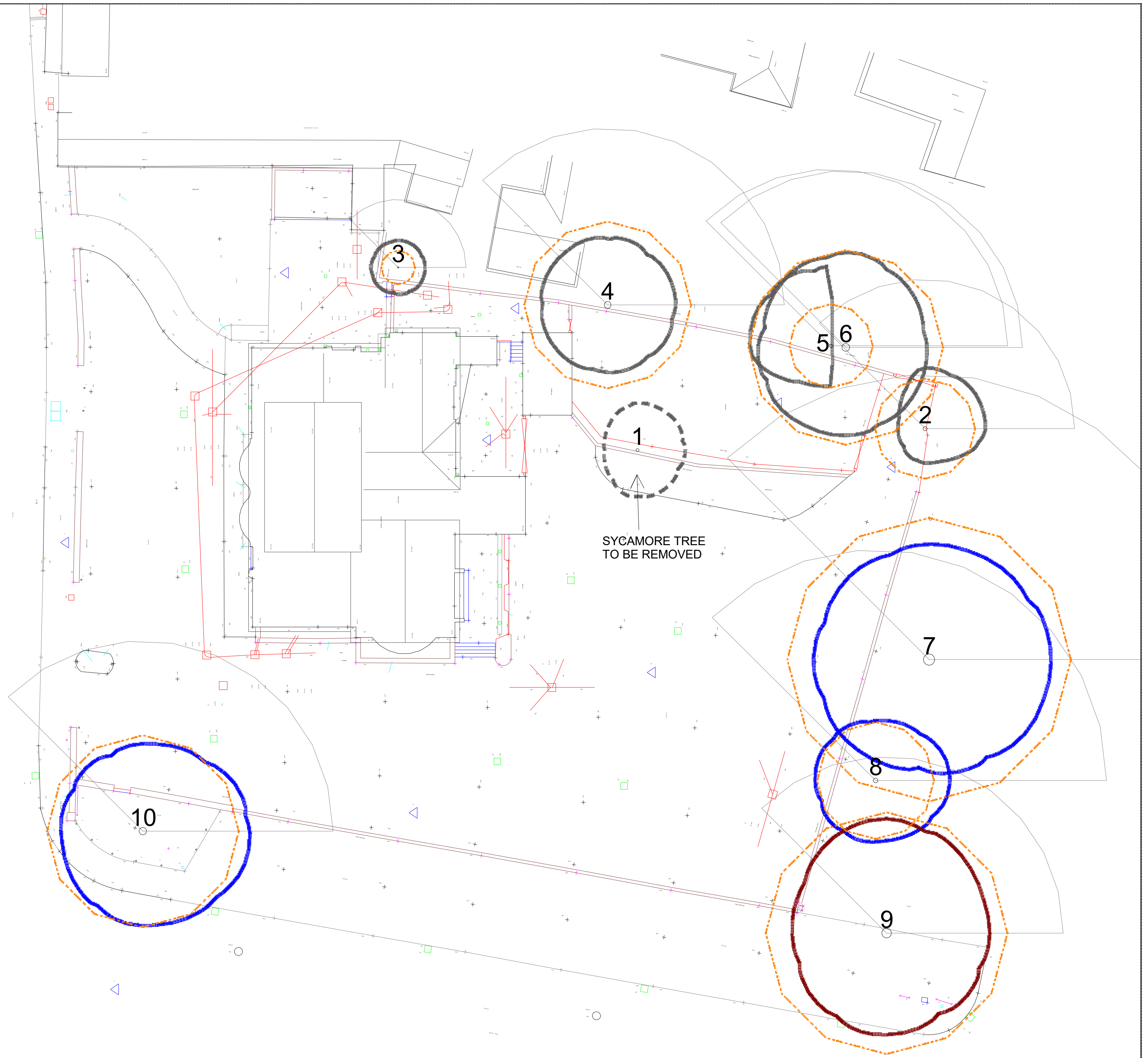
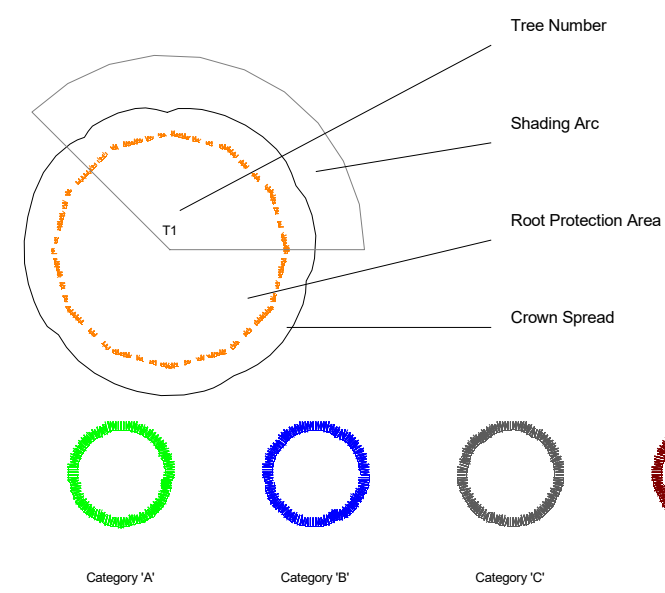
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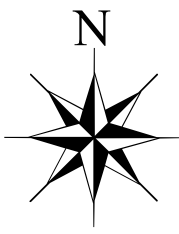


Former Bull & Monk PH, Churchgate, Spalding, Lincs
Tree protection (demolition & site preparation)

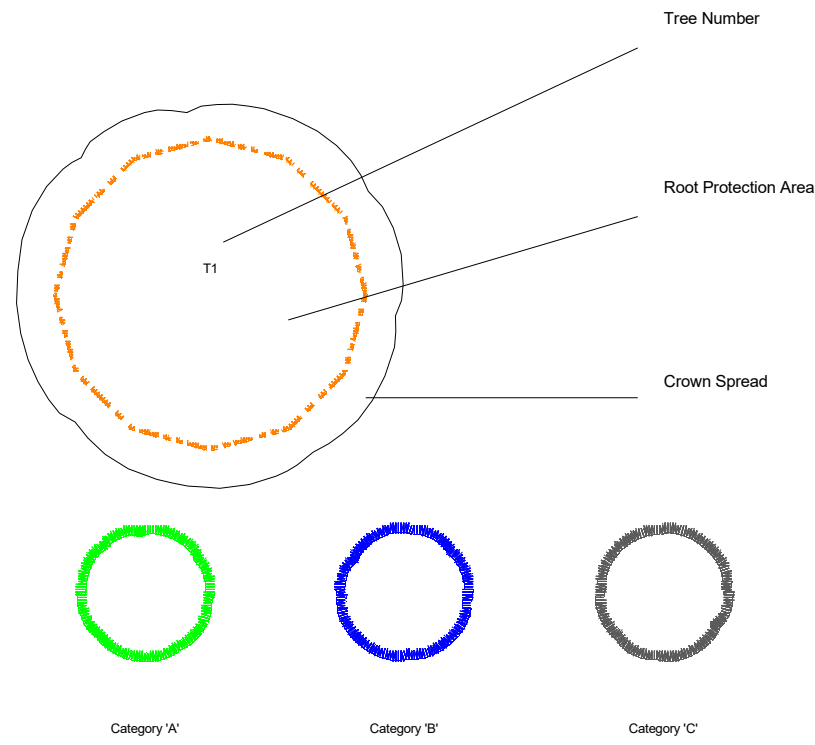
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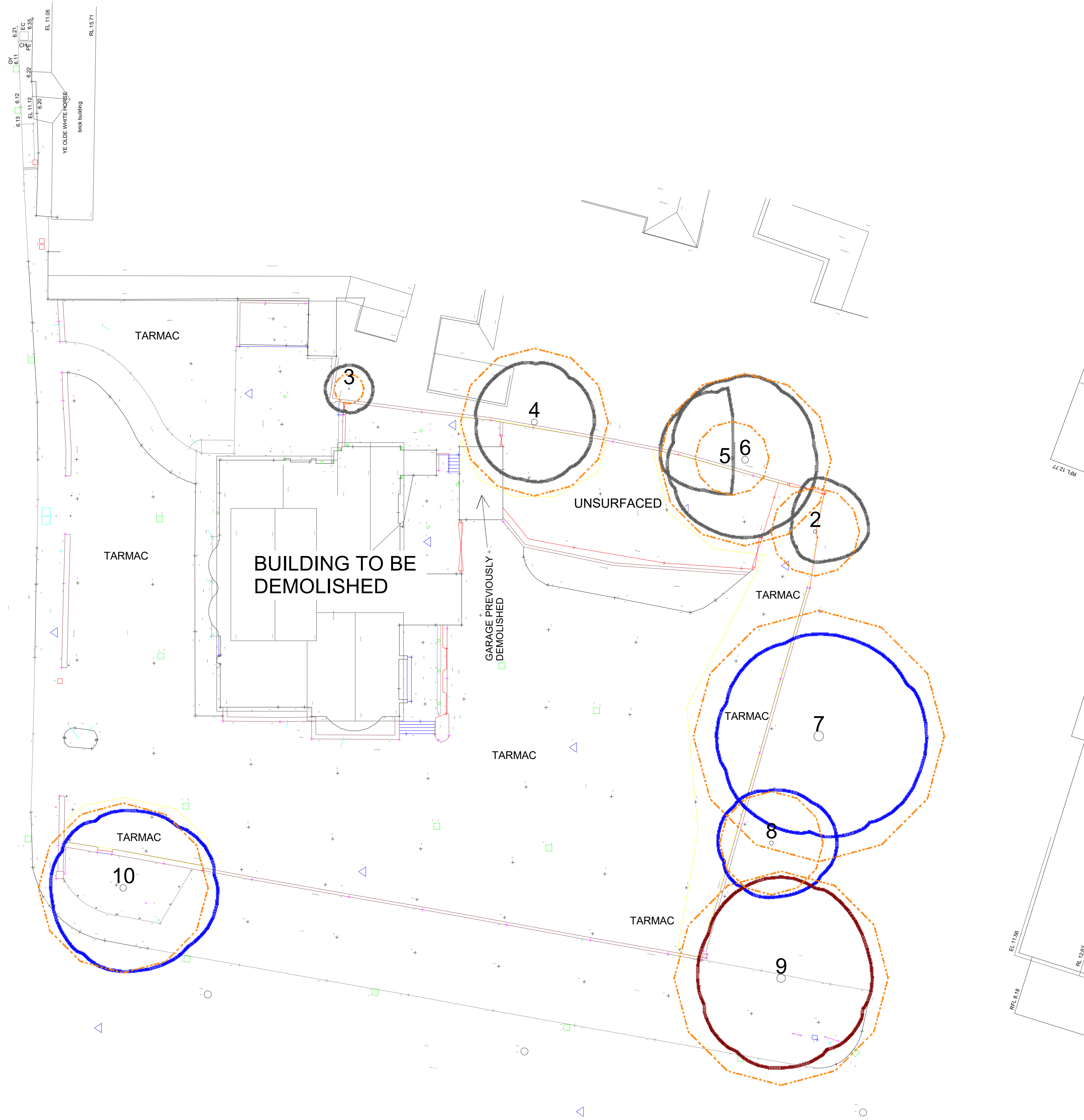
THIS DRAWING MUST BE READ IN COLOUR



ORDER OF OPERATIONS

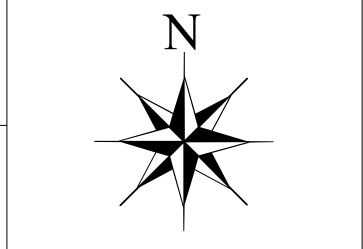
1. Demolish superstructure and foundations of existing building/s
2. Remove arising waste from site
3. Break-up existing surfaces. Where shaded in yellow this MUST be undertaken using pedestrian operated equipment and no excavation must be undertaken deeper than the existing hard surface and sub-base in the yellow areas (to protect tree roots)
4. Rubble / arising waste MUST NOT be stored in the yellow areas
5. Removal of all waste from site
6. Erection of temporary tree protective barrier fencing (see tree protection plan Phase 1)

Removal of existing surfaces within tree root protection areas (RPAs) using only pedestrian operated equipment
NO WASTE OR OTHER MATERIALS TO BE STORED IN THESE AREAS

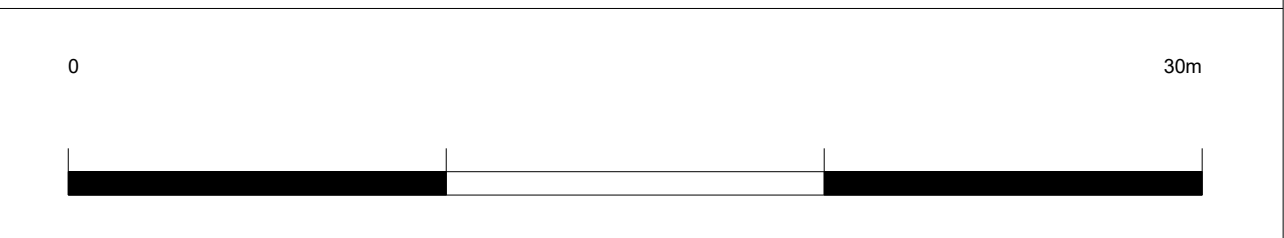
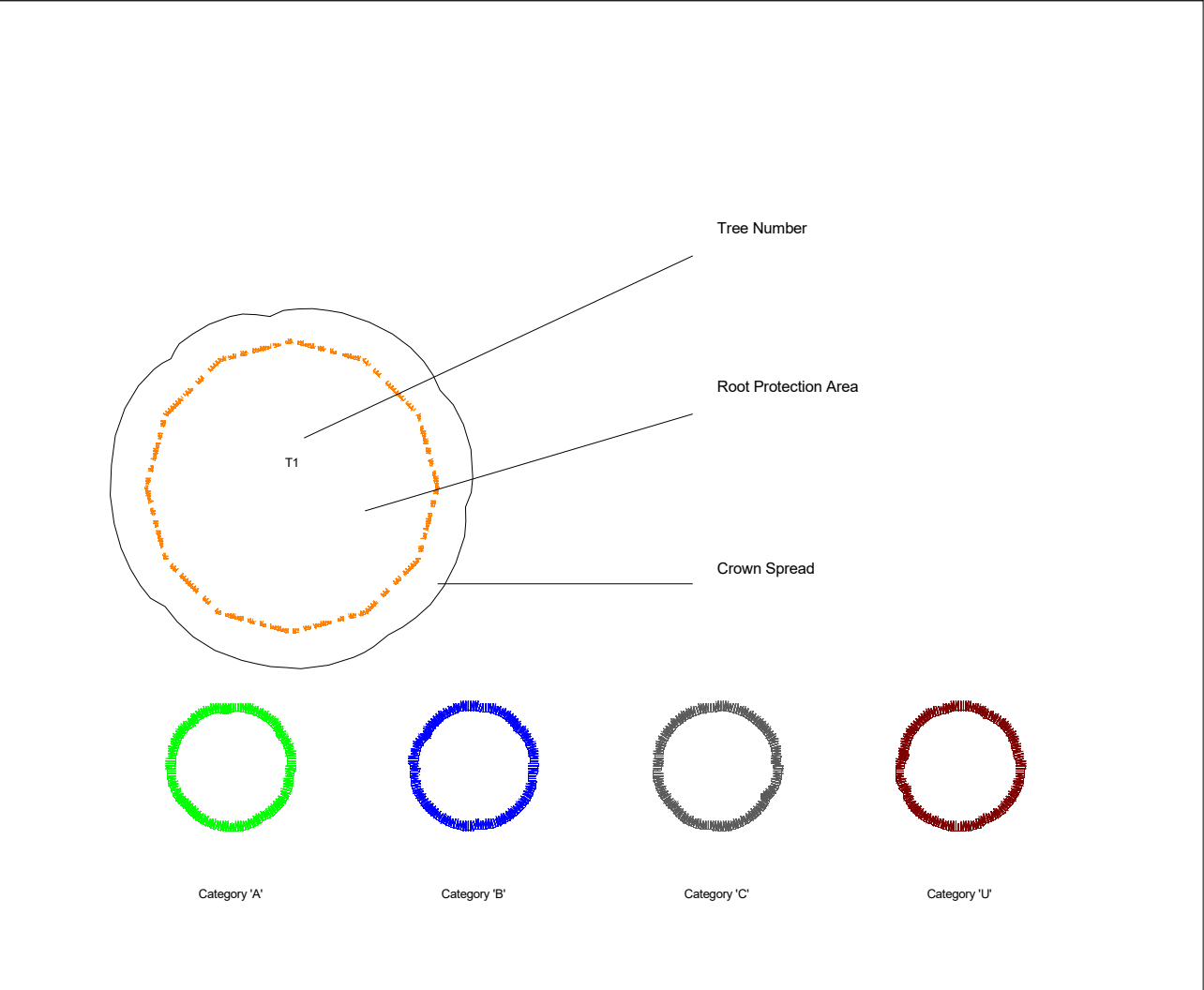


Former Bull & Monkie PH, Churchgate, Spalding, Lincs
Tree protection PHASE 1 (following demolition)

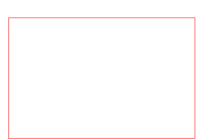
SCALE : 1 : 200 @ A1	DATE : 22/05/2023
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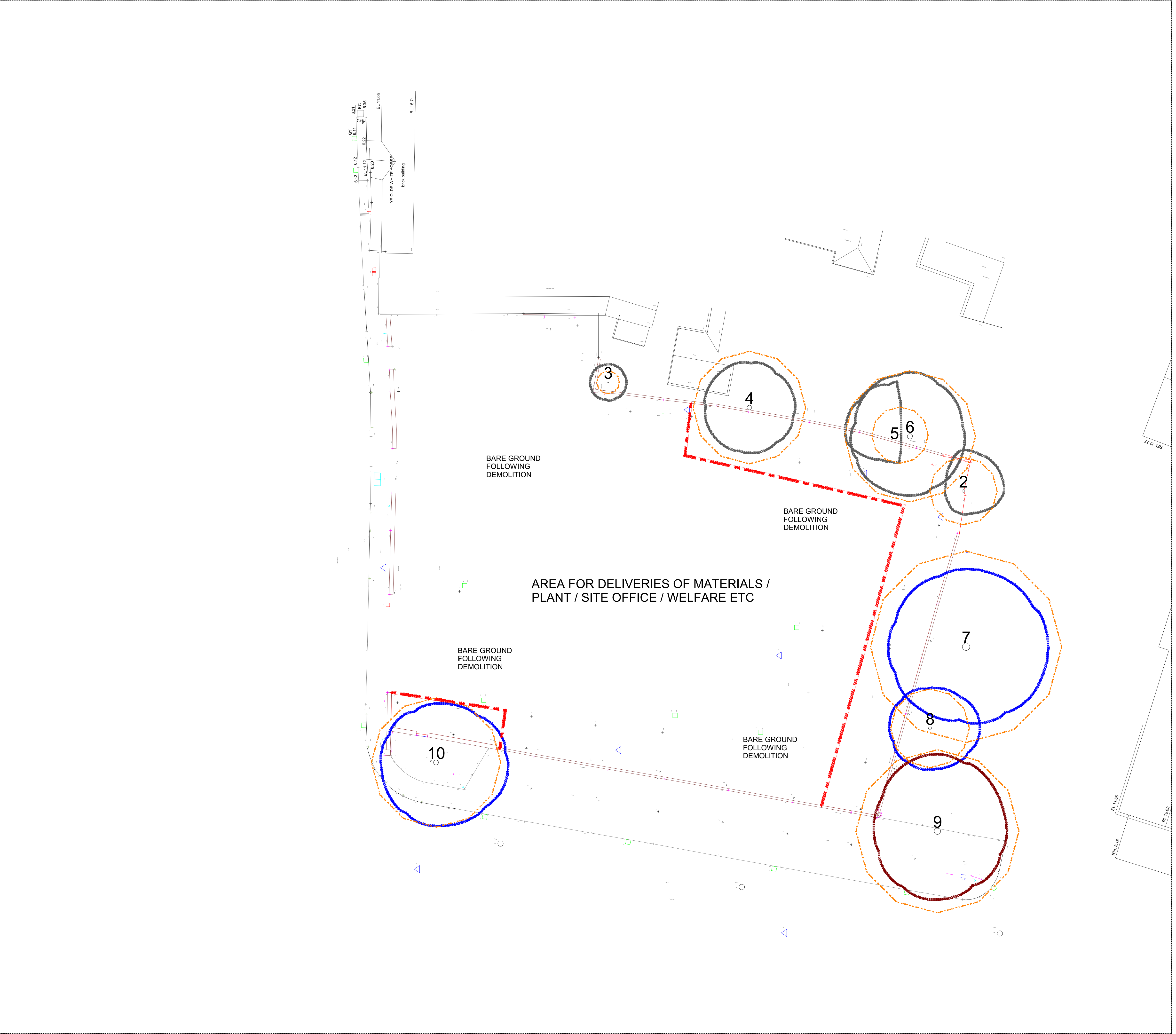


 Temporary tree protective barrier fencing in accordance with British Standard BS5837



Temporary exclusion zone to protect tree roots in RPAs following demolition and removal of hard surfaces

NO ACCESS OR STORAGE
(except pedestrians)

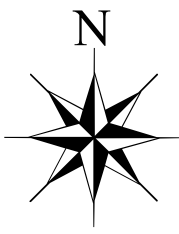


Former Bull & Monkie PH, Churchgate, Spalding, Lincs
Tree protection PHASE 2 (construction)

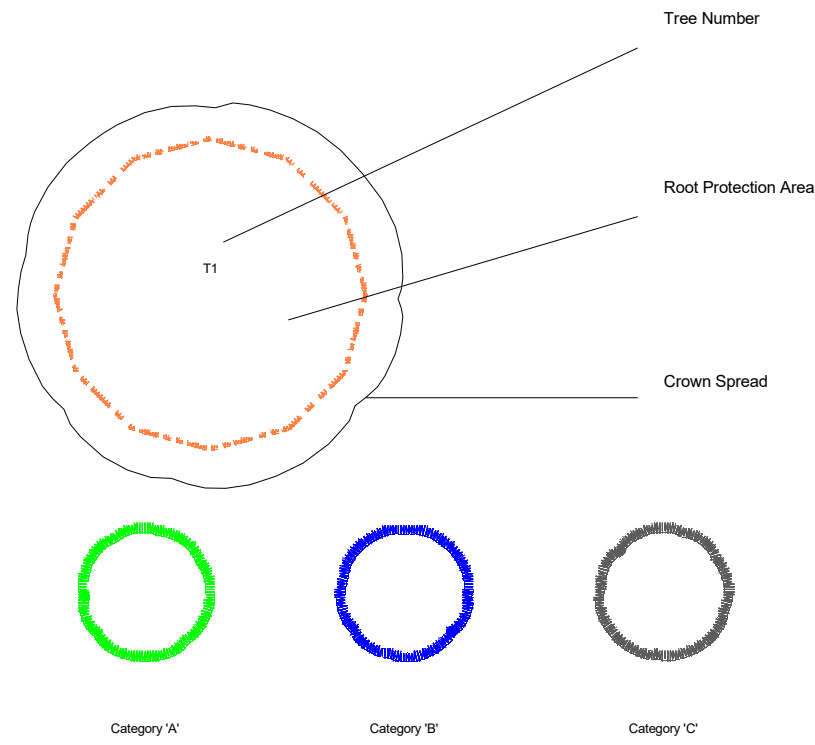
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22/05/2023

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THIS DRAWING MUST BE READ IN COLOUR



- Temporary tree protective barrier fencing in accordance with British Standard BS5837
- Construction exclusion zone (no access except for pedestrians)
Exclusion zone applies up until hard and soft landscaping phase after construction of development
- Temporary tree protective heavy-duty track mats to be laid over the RPA of tree number 4 to protect tree roots whilst allowing construction access
- Proprietary 'no-dig' / minimally invasive, permeable permanent hard surface such as Geosynthetics Ltd 'Cellweb' with permeable wearing course (requires arboricultural method statement (AMS))

ORDER OF OPERATIONS

1. Realign temporary tree protective barrier fencing
2. Install temporary tree protective heavy-duty track mats (tree 4)
3. Construct development (except hard and soft landscaping)
4. Removal of all surplus and waste materials from site
5. Remove tree protective fencing and track mats
6. Install Cellweb 'no-dig' permeable permanent hard surface (tree 4)
7. Install hard and soft landscaping

