



Arboricultural Method Statement

Warwick Nursery

Barnham Road

Eastergate

Chichester

PO20 3RT

Client: Landacre (Eastergate) Ltd

Date: November 2020

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1. Introduction

- 1.1 This arboricultural method statement ('AMS') details the actions to be taken in order to prevent unacceptable damage being caused to the retained trees on this and the adjacent site during the proposed development at Warwick Nursery, Barnham Road, Eastergate, Chichester, PO20 3RT.
- 1.2 This AMS complies with the recommendations of British Standard BS 5837: 2012, *Trees in relation to design, demolition and construction – Recommendations* ('BS 5837'). It is designed to reflect the principles of the tree protection required for the proposed development, and should not be read as a definitive engineering or construction statement for this site. If required, matters relating to the construction detail or engineering performance of any protective measures specified should be referred to a qualified architect or structural engineer, for further information and specification which may be necessary for their practical implementation in a manner that satisfactorily ensures their protective intention or function.
- 1.3 The AMS should be read in conjunction with, and is to be considered an essential part of, the tree protection plan ('TPP') which is attached to it at **Appendix 2**.

2. Pre-start requirements, liaison & communication

- 2.1 Before any works of any description take place on the site, the applicant, landowner or promoter of the proposed development ('the developer') shall appoint a suitably qualified arboricultural consultant to act as the supervising arboriculturist for the project, in order to ensure that the specified tree protection measures are carried out during the entire construction process. Confirmation of this appointment, and details of the supervising arboriculturist appointed, shall be provided to the Local Planning Authority ('LPA') before any works commence.
- 2.2 Before any works commence on site, the developer shall convene a pre-start meeting. This should be attended by the developer or project manager, the site manager, the groundwork contractor, and the supervising arboriculturist and, if so required by the LPA, the LPA tree officer. The meeting will be led by the supervising arboriculturist, who will ensure that the sequence and methods of tree protection specified in this statement are fully explained and understood by all parties. Reporting procedures, arboricultural supervision requirements, and frequency of monitoring visits (as detailed in **Section 9** and *Table 2* of this AMS) will be discussed and agreed, and relevant contact details exchanged. Any modifications to this statement arising from this meeting will be recorded and the revisions circulated to all parties.
- 2.3 The developer shall inform the supervising arboriculturist if at any time during the construction process, the site manager is replaced. In this event, the supervising

arboriculturist will, within 5 days, arrange a meeting with the new site manager to review all remaining or outstanding aspects of this method statement.

- 2.4 A copy of this method statement, together with the TPP, shall be given to all personnel who have control over works of any nature within the root protection areas (RPAs) of the trees which are to be retained. The developer will ensure that adequate instruction is given for the implementation of the protection measures outlined within this statement.

3. Tree removals and pruning

- 3.1 The trees listed in *Table 1* below shall be felled to ground level; stumps shall either be ground out to 450mm below ground level, or excavated (grubbed out), as specified.
- 3.2 Some minor pruning of the retained hedges is required to permit construction of the proposed development. The relevant trees, and the required pruning works, are also listed in the table below.
- 3.3 Tree felling and pruning will be carried out in accordance with British Standard BS 3998: 2010, *Tree work - Recommendations*.

Tree no.	Species	Height	BS Category	Work required	Reason for work
7	Elder	7m	U	Fell/ remove tree.	Within the proposed widening of the access drive.
8	Ash	3m	U	Fell/ remove tree.	Of no potential.
9	Ash	3m	U	Fell/ remove tree.	Of no potential.
10	Crack Willow	3m	U	Fell/ remove tree.	Of no potential.
15 & 16	Elm	11m	C	Fell/ remove trees.	Within the footprint of the proposed attenuation pond.
G1	Hawthorn & Privet	8m	C	Fell/remove group.	Within the proposed widening of the access drive/ unsightly and proposed to be replaced at a later date.
G2	Various	Min 3m Max 8m	C	Partially fell and remove group.	Within the footprint of the proposed attenuation pond and drainage for surface water.
H1	Leyland Cypress	2m	C	Fell/ remove hedge.	Within the proposed widening of the access drive.
H2	Various	4m	C	Partially fell and remove hedge.	Within the footprint of the proposed scheme.
H3	Hawthorn & Elder	Avg. 3m	C	Partially fell and cut back hedge.	Within the footprint of proposed drainage routes and interlinking footpath.

Table 1 – Tree removals and pruning

4. Protective fencing

- 4.1 No vehicles of any kind shall enter the site, nor any works commence, until the root protection areas of the retained trees, as shown on the TPP, have been protected by the erection of protective fencing to the specification found in BS 5837, Section 6.2. The location of the fencing is denoted by the continuous bold purple lines on the TPP.
- 4.2 The fencing shall be at least 2.1m in height and comprise standard 'Heras' welded mesh fence panels mounted on a vertical and horizontal scaffolding framework. The panels shall be fixed to each other with at least two clamps and secured with anti-lift devices to concrete or rubber bases that are pinned to the ground to a depth of 450mm by short lengths of scaffolding tube.
- 4.3 Scaffold uprights shall be at a maximum of 3m centres and supported on the side closest to the retained trees by struts braced to the ground at an angle of 45 degrees. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. The Heras panels shall be secured to the two cross members between the uprights with heavy duty cable ties. Notices stating "*Tree Protection Zone – Keep Out*" will be attached with cable ties to every other panel.
- 4.4 No activity of any kind shall be undertaken behind the protective fencing; there shall be no topsoil stripping, no storage of materials, no access for vehicles or personnel, and no excavation or changes in soil level of any kind.
- 4.5 Areas for storing or mixing of fuels, oils or cement shall be agreed at the pre-start meeting. None of these areas shall be within the area behind the protective fencing, and where possible shall not be within 10m of any retained tree.
- 4.6 No fixtures of any nature shall be attached to the retained trees, and no fires shall be lit in any position where heat could affect their foliage or branches.
- 4.7 The contractor's site huts may, where appropriate, be incorporated into the protective fencing line. If this is to be the case, then their locations must be agreed in advance with the supervising arboriculturist and a method statement supplied that details how the huts are to be placed and supported without compacting the soil within the RPA of any retained tree. Details of the proposed hut locations will be supplied to the LPA in advance of their positioning on site.
- 4.8 Where tall plant or equipment may be passing or working close to the canopies of the retained trees, timber uprights shall be erected and fastened to the protective fencing to prevent accidental damage to branches. Cross members between the uprights shall be marked clearly with reflective tape to ensure high visibility.

- 4.9 If the protective fencing is accidentally damaged or knocked over, the damaged sections shall be immediately marked with high visibility tape or with mesh fencing. The damaged sections shall be replaced or repaired to the original specification within 48 hours. All events of this nature must be recorded and reported to the supervising arboriculturist.
- 4.10 When the installation of the protective fencing is complete, the supervising arboriculturist shall be informed so he may come and inspect it. If it complies with this statement they will record the fact and notify the client and LPA.
- 4.11 Other than as provided for below, the protective fencing will not be moved, dismantled or relocated without the prior approval of the supervising arboriculturist. When the construction period is complete the fencing may then be removed, but only after first informing the supervising arboriculturist of this intention.
- 4.12 For the landscaping phase of the development including the construction of the above soil footpaths and L.A.P., the protective fencing shall be erected in the locations denoted by the dashed bold purple lines once the construction stage of the development is complete. Following construction, the fencing will be relocated to the positions shown, for the duration of the landscaping period of the development.

5. Supervised excavations

- 5.1 Where denoted by bold orange hatching on the TPP, excavations, for the formation edges of new areas of hard surfacing, drainage routes and the attenuation pond shall be undertaken under direct on-site arboricultural supervision. The first 750mm depth of the excavation (or the required depth if this is less than 750mm) shall be excavated using hand tools only, assisted with an airspade (a compressor-powered compressed air lance), if so required by the Local Planning Authority or supervising arboriculturist.
- 5.2 For formation edges of new hard surfacing, any roots found with a diameter of less than 25mm shall be cleanly severed by the supervising arboriculturist. If any roots of 25mm diameter and above are found, they shall initially be covered and protected by damp hessian. The supervising arboriculturist shall then decide if it is necessary to retain them. If not, then shall be cleanly severed. If removal of such roots is not feasible, they shall be wrapped with a 50:50 mixture of topsoil and clean sharp sand with a minimum thickness of 50mm, encased in polythene and incorporated into the kerb structure. The wrapping shall take into account the potential for future growth and make provision for expansion of the roots' diameter.
- 5.3 For the drainage routes and the attenuation pond, any roots found with a diameter of less than 25mm shall be cleanly severed by the supervising arboriculturist. If any roots of 25mm diameter and above are found, they shall initially be covered and protected by damp hessian. The supervising arboriculturist shall then decide if it is necessary to retain them. If not, they shall be cleanly severed.

- 5.4 Where excavation below 750mm depth is required, this may be undertaken by machine, provided that it is carried out under direct on-site arboricultural supervision, and the machinery is stationed and operated either outside the RPAs of retained trees, or on existing hard surfacing, or on suitable ground protection, and there is adequate clearance from the crowns of retained trees.

6. Construction of surfaces (no dig)

- 6.1 Where denoted by red honeycomb hatch on the TPP, the proposed footpaths and L.A.P. within the RPAs of retained trees shall be constructed in accordance with the recommendations of Section 7.4 of BS 5837.
- 6.2 Where possible, this construction should be undertaken after the completion of any other construction works. If this is not feasible, the relevant areas shall be protected from construction traffic, construction operations or soil compaction, either by being fenced off by protective fencing, or by suitable temporary ground protection, in accordance with the specifications earlier in this method statement, for the duration of the construction period up until the time when construction of the relevant areas is able to proceed.
- 6.3 The proposed footpaths and area of L.A.P. shall be clearly marked out before any associated work starts. Existing vegetation may be removed with hand tools or sprayed with an approved non-residual herbicide.
- 6.4 The footpaths may either be constructed above soil using a geotextile membrane pegged out. Wooden shutters shall then be placed along the ground at the width of the proposed footpath and pegged in place. The void between the shuttering boards shall then be filled with woodchip to a depth of approx. 100mm. Or if the footpaths are required to be surfaced, then the below construction technique applies.
- 6.5 For the L.A.P. construction/ surfaced footpaths, any small hollows may be filled with clean sharp sand (not builders' sand) to a maximum depth of 100mm. A permeable geotextile membrane (such as 'Terram') shall be laid down prior to the installation of a cellular confinement system.
- 6.6 The ground shall be covered with a perforated cellular confinement system such as 'Geoweb' or 'Cellweb' with a minimum cell depth of 75mm.
- 6.7 The cellular confinement material shall be fixed in place over the required areas using steel pins at its edges, before being backfilled with clean, no-fines angular aggregate (20mm-40mm).
- 6.8 Vehicles or machinery used in the process of depositing or spreading the aggregate backfill shall not travel over, or work from, unprotected ground within the RPA of any retained trees. Subject to the depth of the cellular confinement system being adequate to support

the loadings, vehicles (such as dumpers or power barrows) may travel over the completed areas of the cellular confinement material, provided that these are filled to their full depth.

- 6.9 Edge supports of appropriate size and strength should be set above ground level and should be secured either with steel pins driven into the ground, or with concrete haunching laid on existing ground level on an impermeable polythene membrane. The outer edge of the supports may be banked up with clean topsoil.
- 6.10 A permeable geotextile membrane will then be laid on top of the cellular confinement system to prevent fines and other debris filling the air spaces in the aggregate. The wearing course or final surface shall be of a permeable soft playground surface material or woodchip.

7. Underground services

- 7.1 Detailed drawings of proposed underground services have now been produced. Drawings have been produced to design the drainage away from RPAs. However, there are two small incursions as set out on DAA TPP 02 Nov 20, and within Table 2 below.
- 7.2 Any new installation will comply with the methods and guidelines detailed in the National Joint Utilities Group (NJUG), Volume 4, *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*, Issue 2, 2007, and in accordance with the specification below.
- 7.3 If open excavations for service or drainage trenches within RPAs are unavoidable, these shall be undertaken under direct on-site arboricultural supervision. The first 750mm depth of the excavation (or the required depth if this is less than 750mm) shall be excavated using hand tools only, assisted with an airspade (a compressor-powered compressed air lance), if so required by the Local Planning Authority and/or supervising arboriculturist.
- 7.4 Any roots found with a diameter of less than 25mm shall be cleanly severed by the supervising arboriculturist. If any roots of 25mm diameter and above are found, they shall initially be covered and protected by damp hessian. The supervising arboriculturist shall then decide if it is necessary to retain them. If not, they shall be cleanly severed. If removal of such roots is not feasible, then they shall be wrapped with a 50:50 mixture of topsoil and clean sharp sand with a minimum thickness of 50mm, encased in polythene and retained spanning the trench.
- 7.5 Ducting, cables or pipes for the utilities shall then be threaded into the trench beneath the spanning roots. Backfilling of the trench shall be undertaken in 150mm layers, with clean topsoil only being used within the uppermost 400mm, each layer of backfill being compacted by foot pressure only. Excavator buckets or other mechanical plant will not be used to compact the backfill.

8. Landscaping

- 8.1 On completion of construction works, but prior to the commencement of any landscaping works within the protected area behind the protective fencing the developer shall arrange a meeting with the site manager, the supervising arboriculturist and the landscape contractor. The details of this part of the method statement shall be discussed in relation to the proposed landscape operations, where landscape fencing amendments should be carried out and a clear sequence of operations established.
- 8.2 Within the RPAs the following principles will be maintained:
-)] Existing ground levels shall not be substantially altered.
 -)] No plant or vehicles shall enter the RPA.
 -)] No fuels or chemicals shall be stored within any of these areas.
 -)] Any excavation required for fence posts, log retaining walls or any other landscape structures shall be undertaken by hand, under direct arboricultural supervision. If roots are encountered then the position of the excavation shall be moved to a new location. If this is not possible then any roots with a diameter less than 25mm may be cut cleanly by hand. Any exposed roots shall be re-covered within 24hrs of excavation.
 -)] No structure shall be fastened in any way to the trunks of the retained trees.
 -)] No drainage or irrigation pipes shall be installed within the RPAs of the retained trees.
 -)] Any unwanted vegetation shall be removed by hand.

9. Supervision & monitoring

- 9.1 At the start of the construction process the supervising arboriculturist shall visit the site on the occasions specified to inspect the tree protection measures (fencing and ground protection) as installed. If these measures comply with the specifications detailed in this method statement, statements of compliance shall be sent to the developer and copied to the LPA.
- 9.2 The supervising arboriculturist shall then visit the site at a maximum of four-weekly intervals or as agreed at the pre-start meeting, or when specifically required as set out in *Table 2* below, to ensure that the tree protection measures are kept in place and functioning as designed. Regular contact will be maintained with the site manager to determine any forthcoming operations that may make an impact on these tree protection measures and if arboricultural supervision is required. A record of all monitoring visits will be kept, and copies sent to the developer and the LPA upon request.

- 9.3 The site manager shall give at least 48 hours' notice to the supervising arboriculturist of any operations; excavations for hard surfacing and attenuation ponds, which may make an impact on the RPAs of the retained trees.
- 9.4 Any alterations or variations in drawings for the site that are in, or within, the RPAs of the retained trees shall be referred in the first instance to the supervising arboriculturist for his advice. If these changes make any kind of impact on the retained trees the supervising arboriculturist shall suggest changes that will either avoid damage to the retained trees or offer solutions to minimize the impact. If required, the supervising arboriculturist will liaise with the LPA's tree officer to agree a way forward, since any alterations to the approved details may require the LPA's prior written agreement. Following these consultations, the supervising arboriculturist shall issue revisions to the TPP and this AMS that reflect the changes.
- 9.5 Where any operations carried out by the developer deviate substantially from this AMS, work must cease immediately. A meeting will be convened between the developer, the supervising arboriculturist, and the site manager to determine the best method to mitigate any damage that may have occurred. Work shall not be recommenced until appropriate action has been agreed to the LPA's satisfaction.

Visit no.	Trees affected/ relevant	Timing of visit	Function carried out
1	All	Following tree felling and erection of protective fencing.	To lead a pre-start meeting and check protective fencing has been installed in the correct locations and to the correct standard.
2	Trees 4, 5, 6, & 26	During such time the kerb formation is required with T26 and the excavation is required for main surface water drainage within 4, 5 and 6. .	To supervise the manual excavation of the kerb foundations and main surface water drainage trench.
3	Tree no. 21, 24 & 25	During the landscape phase of construction.	To supervise the installation of above ground footpaths and L.A.P.
4	All	Every four weeks during the construction phase.	To check the protective fencing & ground protection remain in place and that activities which would be harmful to trees are not being carried out.
5	All	At any other time which is sensitive in arboricultural terms.	To ensure retained trees are protected from development activities.

Table 2 - Timings of supervision and monitoring visits

Michael Roberts | Arboricultural Consultant

November 2020



APPENDIX 1 – Tree Schedule

Notes for the Tree Schedule

This schedule is based on an inspection carried out by Michael Roberts on Tuesday the 23rd June 2020. Weather conditions at the time were clear, dry and bright. Deciduous trees were in leaf.

The information contained in this schedule reflects the conditions of those specimens at the time of inspection. They were inspected from the ground only; they were not climbed and no internal investigations were undertaken, thus no guarantee may be given as to their structural integrity.

As trees are dynamic organisms and subject to continual change no dimensions expressed in this schedule may be relied upon for development purposes for more than 24 months from the date of survey. Estimated dimensions are marked 'est'.

1. **No:** Expressed in sequential order starting from number 1 – woodlands, groups & hedges are prefixed as W, G, & H respectively.
2. **TPO:** Trees and Tree Groups protected by Tree Preservation Order ref. TPO EG/2/19, all trees with "TPO" are protected from removal or pruning without prior consent from, the local planning authority.
3. **Species:** The common name as given in "Collins Tree Guide", Johnson & More (2004).
4. **Height:** Estimated with the aid of a 'Disto' laser range finder and expressed in metres.
5. **Trunk Diameter:** Measured at 1.5m above ground level and expressed in millimetres to the nearest 10mm; where multiple stems are present they are measured individually and a cumulative total calculated in accordance with BS5837 (2012).
6. **Radial Crown Spread:** Distance in metres from the centre of the trunk to each cardinal point of the compass and rounded up to the nearest half metre.
7. **Crown Clearance:** Mean height from adjacent ground level to the lowest point of the crown.
8. **Height to First Branch:** Height, in metres, of the first significant branch (100mm) or to crown break from ground level.
9. **Life Stage:** Young, Semi mature, Mature, Veteran/Ancient.
10. **Physiology:** Health and condition of the tree in comparison to a typical specimen of species and age: Good, Average, Below Average, Poor, Dead.
11. **Structure:** The structural condition of the tree based on an assessment of any visible roots, trunk and crown, noting the presence of any defects or decay: Good, Moderate, Indifferent, Poor, Hazardous.
12. **Landscape Value:** Reflecting the importance of the tree in the local landscape. High, Moderate, Low, Nil.
13. **Estimated Years:** Estimate of remaining contribution expressed in years <10, 10-20, 20-40, 40+.
14. **Comments:** Notes relating to health and condition, structure and form, estimated life expectancy and importance within the local landscape.
15. **Category:** - A rating given to individual trees based on Table 1 in the British Standard, BS 5837 (2012) "*Trees in relation to design, demolition and construction - Recommendations*".

Category 'U' - 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 arboriculture management.

Category 'A' - Trees of high quality and value; in such a condition as to be able to make a substantial contribution (Normally a minimum of 40 years).

Category 'B' - Trees of moderate quality and value; those in such a condition as to make a significant contribution (Normally a minimum of 20 years).

Category 'C' - Trees of low quality and value; currently in adequate condition to remain until new planting could be established (Normally a minimum of 10 years), or young trees with a stem diameter below 150mm.

Sub-categories (where appropriate); 1 – Mainly arboricultural qualities: 2 – Mainly landscape qualities: 3 – Mainly cultural values, including conservation.

No.	Species	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Height to 1st Branch	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category
1-4	Lawson Cypress	10m	#T1 300mm 350mm 200mm 125mm est #T2 6 stems @ 200mm 300mm est #T3 7 stems @ 200mm 2 stems @ 250mm est #T4 400mm 250mm 3 stems @ 200mm est	NE6m SE5m SW8m NW4m	NE2m SE2m SW4m NW4m	1.5m	Mature	Below average	Below average	Moderate	10-20	Off-site trees; of only temporary screening benefit; heavily topped in the past; internal growth dead; only outside growth with any vitality; of short term potential only.	C (12)
5-6	Lawson Cypress	10m	#T5 375mm est #T6 400mm est #T6 200mm	NE0m SE5m SW7m NW4.5m	4m	0.5m	Mature	Below average	Below average	Low	10-20	Off-site trees; heavily topped at 6m; internal growth dead; only outside growth with some vitality; of short term potential only.	C (12)

No.	Species	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Height to 1st Branch	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category
7	Elder	7m	125mm 90mm 75mm 200mm est	NE2m SE2.5m SW2m NW1.5m	2m	2m	Mature	Poor	Below average	Low	<10	In significant, immediate & irreversible overall decline.	U
8-9	Ash	3m	#T8 700mm ivy #T9 450mm ivy 4 stems @ 275mm est	2m	1m	1.5m	Mature	Below average	Below average	Low	10-20	Pollarded at 3m; of no potential.	U
10	Crack Willow	3m	6 stems @ 300mm ivy est	NE3m SE2m SW2m NW2m	0.5m	0.5m	Over-mature	Below average	Hazardous	Low	<10	Partially collapsed and pollarded regularly as management; of no potential.	U
11	English Oak TPO EG/2/19	16.5m	650mm est	NE9m SE9.5m SW4m NW5.5m	E2m W5m	3.5m SE	Mature	Average	Below average	Moderate	10-20	Significant bark necrosis at base on Eastern side of trunk; twin stemmed from 3m with tight inclusion; epicormic growths throughout crown; environmental stresses; above average deadwood for species; crown has been severely lifted on NW side in past ; concrete surfacing and stacked materials immediately to the west of trunk; of short term potential only.	C (1)
12	Ash	18m	5 stems @ 300mm est	N8m E8m S10m W7.5m	E2m	4m E	Semi-mature	Below average	Below average	Moderate	10-20	Off-site tree; multi stemmed from base; epicormic growth throughout crown; foliage slightly sparse and clumping towards extremities of twigs; possible Ash Dieback ; of short term potential only.	C (12)
13	Field Maple	11m	375mm ivy est	N4m E7.5m S6m W5m	E2m	5.5m E	Mature	Average	Below average	Low	20-40	Old hedgerow species now lapsed and grown into hedgerow tree; leaning trunk; ivy covered.	C (1)

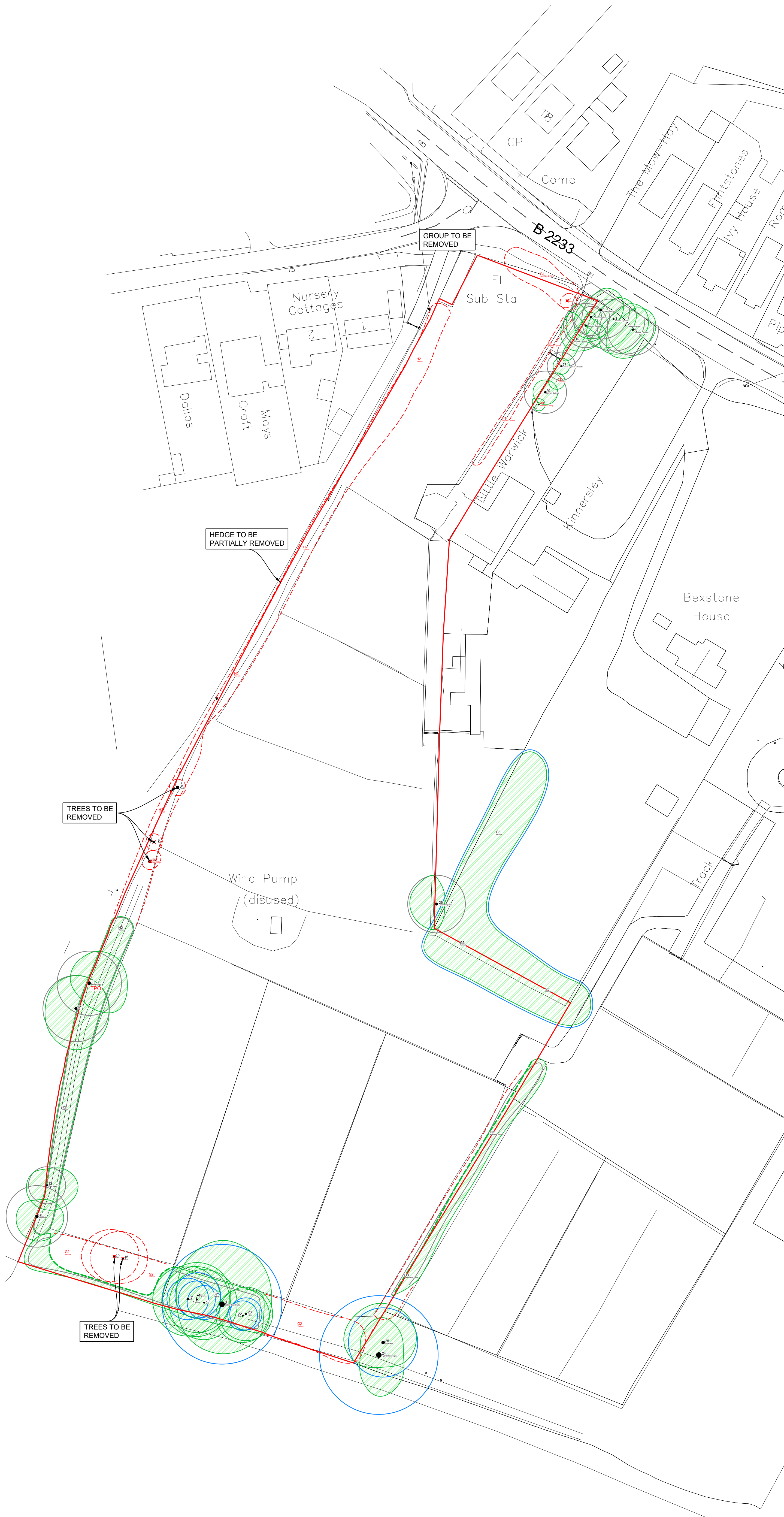
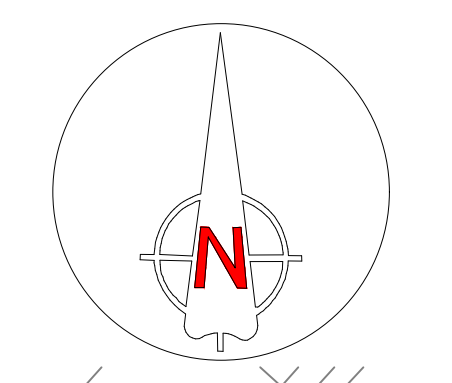
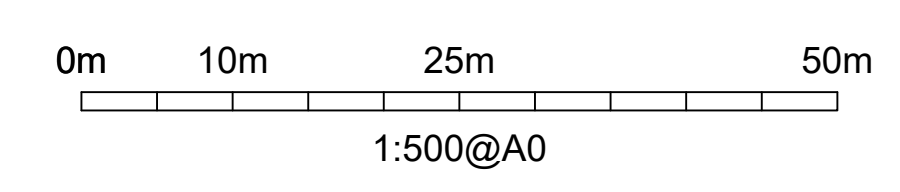
No.	Species	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Height to 1st Branch	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category
14	Field Maple	14m	8 stems @ 220mm ivy est	N4m E6.5m S6m W5m	SE2m	4m E	Mature	Average	Below average	Low	20-40	Old hedgerow species now lapsed and grown into hedgerow tree; leaning trunk; ivy covered.	C (1)
15-16	Elm	11m	#T15 250mm est #T16 275mm est	N6.5m E6m S6m W8m	N2m	2m NE	Semi-mature	Average	Average	Low	20-40	Off-site trees; small self-seeded specimen; suppressing each other; of limited potential.	C (12)
17-20	Elm	16.5m	#T17 420mm #T18 230mm #T18 400mm #T19 375mm #T20 310mm 150mm	N8m E8m S9m W8.5m	3m	2.5m	Semi-mature	Average	Average	Moderate	20-40	Off-site trees; aerodynamic meshing crowns; drawn up and mutually suppressed ; no significant structural defects found at time of survey.	B (12)
21	Hybrid Black Poplar	27m	1210mm ivy	N15.5m E12m S12m W11m	N6m	7m NE	Mature	Average	Average	High	20-40	Off-site tree; ivy covered trunk; unable to assess base of trunk; slightly sparsely foliated; of particular visual importance.	B (2)
22-23	Elm	14m	#T22 300mm ivy est #T23 325mm ivy est	6.5m	3m	3m	Semi-mature	Average	Average	Moderate	20-40	Off-site trees; ivy covered; drawn up and mutually suppressed canopies; growing within the crown of adjacent poplar no. 21.	B (12)
24	Hybrid Black Poplar	19.5m	1200mm ivy est	N9m E6m S10m W4.5m	14m	14m S	Mature	Below average	Average	High	10-20	Off-site tree; ivy covered; unable to assess base to full extent; sparsely foliated; storm damage within crown.	B (2)

No.	Species	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Height to 1st Branch	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category
25	Sycamore	13m	700mm ivy est	N9.5m E8m S6m W9.5m	N1.5m	2m	Mature	Average	Average	Moderate	40+	Off-site tree; ivy covered; four stemmed from 1.5m; no significant structural defects found at time of survey.	B (12)
26	Leyland Cypress	12.5m	300mm 500mm est	N6.5m E2m S6m W6.5m	2.5m	1.5m W	Semi-mature	Average	Below average	Low	10-20	Off-site tree; one-sided as suppressed by adjacent trees; of short term potential only.	C (12)
27	Lawson Cypress Ellwoodii	5.5m	2 stems @ 100mm 2 stems @ 175mm	2m	0.5m	0.2m	Semi-mature	Average	Average	Low	10-20	Small ornamental tree.	C (12)
28	Tamarisk	4m	2 stems @ 75mm	2m	1m	0.5m	Semi-mature	Below average	Below average	Low	<10	In significant, immediate & irreversible overall decline.	U
29	Lawson Cypress	5.5m	6 stems @ 175mm est	3m	0.5m	0.5m	Semi-mature	Below average	Below average	Low	10-20	Off-site tree; recently "topped" at 5m; of no material value.	C (12)
30	Flowering Cherry	4m	225mm est	N1.5m E1.5m S1.5m W1.5m NW2m	1.5m	1.5m	Mature	Below average	Hazardous	Low	<10	Off-site tree; fungal fruiting bodies on trunk; in significant, immediate & irreversible overall decline.	U
G1	Hawthorn and Privet	8m	Avg 120mm est	3.5m	0.5m	0.5m	Mature	Average	Below average	Low	20-40	Unmanaged and dilapidated in areas; bramble covering towards NW end.	C (12)
G2	Elm, Hawthorn, Field Maple and Hazel	Min 3m Max 8m	Avg 200mm ivy est	4m	0.5m	0.5m	Semi-mature	Below average	Below average	Low	20-40	Boundary group of mutually suppressed partially collapsed unmanaged trees; provides screening to property from public footpath.	C (12)
G3	Leyland Cypress, Sycamore and Silver Birch	15m	Min 200mm Max 550mm est	N7m E3m S7.5m W3m	2m	2.5m	Semi-mature	Average	Average	Moderate	20-40	Off-site group of trees; closely planted group forming a screen; drawn up and mutually suppressed canopies.	B (12)

No.	Species	Height	Trunk Dia.	Radial Crown Spread	Crown Clearance	Height to 1st Branch	Life Stage	Physiology	Structure	Landscape Value	Est. Years	Comments	Category
H1	Leyland Cypress	2m	Avg 175mm est	0.5m	0.5m	0.2m	Mature	Average	Average	Low	10-20	Golden cypress; appears to be regularly managed.	C (12)
H2	Hawthorn, Elder, Hazel and Ash	4m	Avg 200mm est	2m	0m	0.5m	Mature	Average	Below average	Low	20-40	Mixed hedgerow running long western boundary of site.	C (12)
H3	Hawthorn and Elder	Avg 3m	Avg 100mm est	2m	0.5m	0.5m	Semi-mature	Below average	Below average	Low	10-20	Dilapidated hedge, mainly covered in brambles; some small hedgerow species sporadically growing through; of no potential.	C (1)
H4	Leyland Cypress	2m	Avg 250mm est	0.5m	0.5m	0.5m	Mature	Below average	Below average	Low	10-20	Patchy hedge; of short term potential.	C (12)



APPENDIX 2 – Tree Protection Plan



EXISTING SITE PLAN
INDICATING PROPOSED
TREE REMOVALS & PRUNING



PROPOSED PLAN
INDICATING TREE
PROTECTION MEASURES

PROTECTIVE FENCING

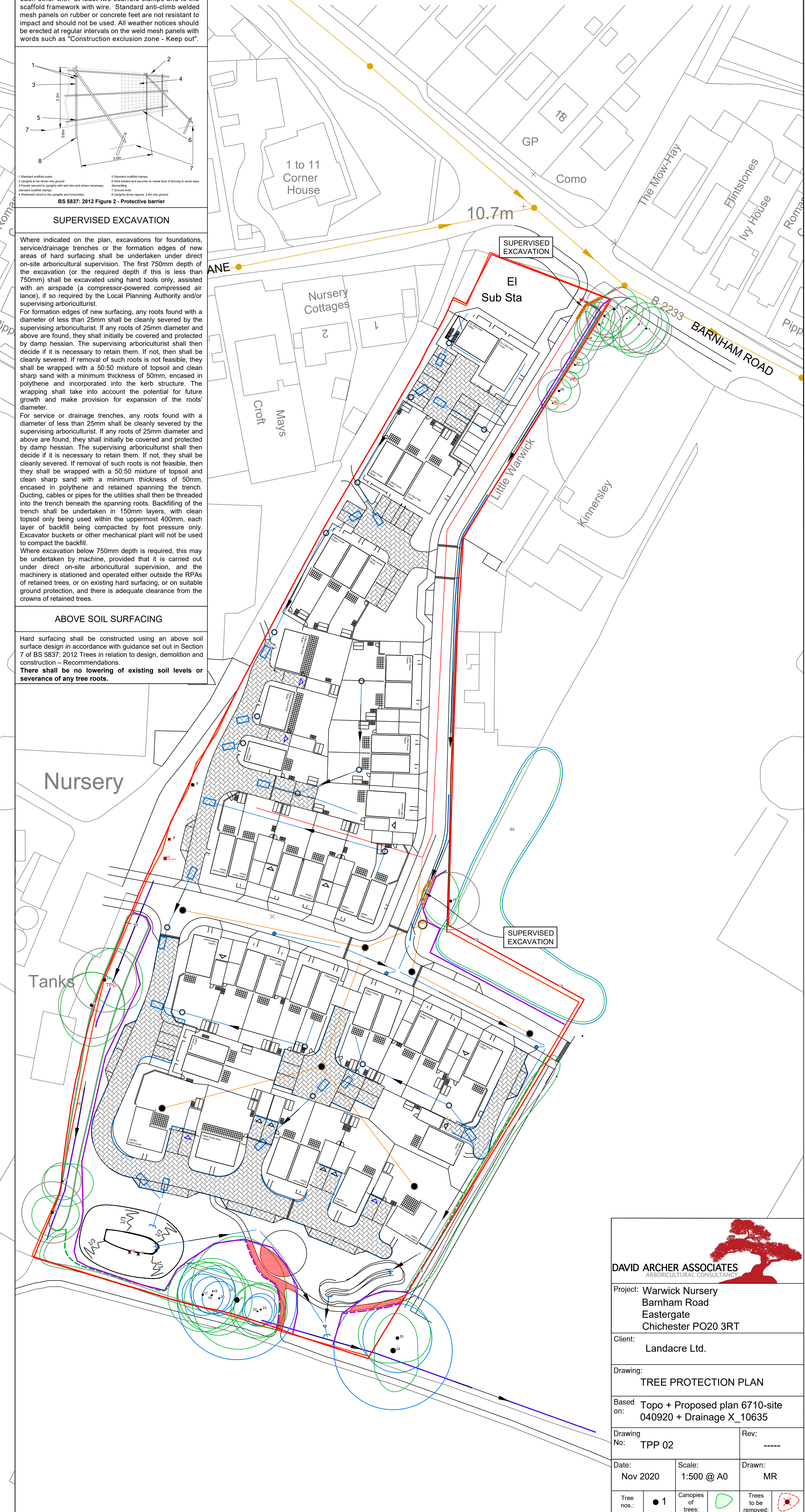
To be erected prior to the commencement of all works on site, and retained in place throughout construction. To comprise either 2.4m wooden site hoarding, or a 2.3m high scaffolding framework comprising of vertical and horizontal framework, well braced to resist impacts, with uprights to be spaced at a maximum of 3.0m intervals and driven into the ground by a minimum of 600mm. On to this, standard anti-climb welded mesh panels are to be securely fixed to each other with at least two scaffold clamps and to the scaffold framework with wire. Standard anti-climb welded mesh panels on rubber or concrete feet are not resistant to impact and should not be used. All weather notices should be erected at regular intervals on the weld mesh panels with words such as "Construction exclusion zone - Keep out".

SUPERVISED EXCAVATION

Where indicated on the plan, excavations for foundations, service/drainage trenches or the formation edges of new areas of hard surfacing shall be undertaken under direct on-site arboricultural supervision. The first 750mm depth of the excavation (or the required depth if this is less than 750mm) shall be excavated using hand tools only, assisted with an airspade (a compressor-powered compressed air lance), if so required by the Local Planning Authority and/or supervising arboriculturist. For formation edges of new surfacing, any roots found with a diameter of less than 25mm shall be cleanly severed by the supervising arboriculturist. If any roots of 25mm diameter and above are found, they shall initially be covered and protected by damp hessian. The supervising arboriculturist shall then decide if it is necessary to retain them. If not, they shall be cleanly severed. If removal of such roots is not feasible, then they shall be wrapped with a 50:50 mixture of topsoil and clean sharp sand with a minimum thickness of 50mm, encased in polythene and incorporated into the kerb structure. The wrapping shall take into account the potential for future growth and make provision for expansion of the roots diameter. For service or drainage trenches, any roots found with a diameter of less than 25mm shall be cleanly severed by the supervising arboriculturist. If any roots of 25mm diameter and above are found, they shall initially be covered and protected by damp hessian. The supervising arboriculturist shall then decide if it is necessary to retain them. If not, they shall be cleanly severed. If removal of such roots is not feasible, then they shall be wrapped with a 50:50 mixture of topsoil and clean sharp sand with a minimum thickness of 50mm, encased in polythene and retained spanning the trench. During, cables or pipes for the utilities shall then be threaded into the trench beneath the spanning roots. Backfilling of the trench shall be undertaken in 150mm layers, with clean topsoil only being used within the uppermost 400mm, each layer of backfill being compacted by foot pressure only. Excavator buckets or other mechanical plant will not be used to compact the backfill. Where excavation below 750mm depth is required, this may be undertaken by machine, provided that it is carried out under direct on-site arboricultural supervision, and the machinery is stationed and operated either outside the RPAs of retained trees, or on existing hard surfacing, or on suitable ground protection, and there is adequate clearance from the crowns of retained trees.

ABOVE SOIL SURFACING

Hard surfacing shall be constructed using an above soil surface design in accordance with guidance set out in Section 7 of BS 5837: 2012 Trees in relation to design, demolition and construction - Recommendations. **There shall be no lowering of existing soil levels or severance of any tree roots.**



PROPOSED PLAN INDICATING
TREE PROTECTION MEASURES
AND PROPOSED DRAINAGE

DAVID ARCHER ASSOCIATES
LANDSCAPE ARCHITECTS

Project: Warwick Nursery
Barnham Road
Eastgate
Chichester PO20 3RT

Client: Landacre Ltd.

Drawing: TREE PROTECTION PLAN

Based on: Topo + Proposed plan 6710-site
040920 + Drainage X_10635

Drawing No: TPP 02

Date: Nov 2020

Scale: 1:500 @ A0

Drawn: MR

Rev: ---

Tree nos: 1	Canopies of trees	Trees to be removed
Category 'B' RPA	Category 'C' RPA	Land phase protective fencing
Core phase protective fencing	Supervised excavation	Above soil surfacing
Proposed SW	Proposed FW	Proposed NW

David Archer Associates
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information only and should not be used for
construction purposes
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