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**ARBORICULTURAL METHOD STATEMENT
IN RELATION TO
REFURBISHMENT AND REVISIONS**

AT

**THE PHOENIX SCHOOL
40 CHRISTCHURCH ROAD
READING
RG2 7AY**

BY

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Chartered Arboriculturist**

**Council: Reading Borough Council
Application No.: 231025
Status: Approved, subject to conditions.
Condition covered in Statement: 5**

**Our ref: J64.56
14th February 2024**

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APPENDICES:

1. TREE PROTECTION PLAN, DRAWING NO. J64.56/02 REV. C
2. REPORT ON INVESTIGATIONS FOR ROOT PRESENCE

1. INTRODUCTION

Broad Oak Tree Consultants Ltd. received instructions to produce an Arboricultural Method Statement (AMS) in relation to the refurbishment and revisions at The Phoenix School, 40 Christchurch Road, Reading, RG2 7AY.

Condition 5 reads as follows:

5. *No development shall commence on site (including demolition or preparatory works) until an Arboricultural Method Statement and Tree Protection Plan in accordance with the relevant recommendations of appropriate British Standards or other recognised Codes of Good Practice for all existing trees that are not shown as being removed on the approved drawings, both within and adjacent to the site, has been submitted to and been approved in writing by the Local Planning Authority. The development shall not be carried out other than in accordance with the approved Arboricultural Method Statement and Tree Protection Plan.*

REASON: In order to ensure that appropriate protection is given to trees of amenity value within and adjacent to the site in accordance with Policy EN14 of the Reading Borough Local Plan 2019.

2. GENERAL

This AMS is designed to reflect the principles of tree protection embodied in BS5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations". It should not be read as a definitive engineering or construction statement for this site. Input from the appropriate professionals in relation to all aspects of the demolition and construction works will be required to ensure works comply with the relevant building standards.

This AMS sets out the methodology for proposed works with the potential to affect trees. Compliance with this AMS will be a requirement of all relevant contracts associated with the development. All contractors will be responsible for undertaking their own risk assessments with regard to any of the works detailed in this AMS. The documents to be referred to in conjunction with this statement are as follows:

- BS5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations" hereinafter referred to as BS5837:2012.
- BS3998:2010 "Tree Work Recommendations", hereinafter referred to as BS3998:2010.
- Broad Oak Tree Consultants Ltd. Tree Protection Plan, drawing no. J64.56/02 Rev. C, hereinafter referred to as the TPP, attached in Appendix 1.
- NJUG Volume 4 "Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees" hereinafter referred to as NJUG Volume 4.

The tree information contained in this AMS is taken from the Arboricultural Implications Assessment report dated 16th October 2023 submitted as part of the application.

3. LIAISON/COMMUNICATION

Once all tree protection measures that are indicated on the TPP to be installed pre demolition are in place a precommencement meeting will be held between the appointed Arboricultural Consultant (AC), the Site Manager and the Council Tree Officer to confirm that the appropriate protective measures are in place and to the required specification as detailed on the TPP. The meeting will confirm that the Site Manager is conversant with the content of the AMS and their obligations to ensure that all operators on site comply with its requirements and respect the tree protection measures as shown on the TPP.

The details of the meeting and photographic confirmation of the positioning and specification of the tree protection measures will be sent to the Council Tree Officer and client.

The client shall inform the AC if the Site Manager is replaced during the construction process. The AC will then arrange a meeting with the new Site Manager to review all the remaining aspects of the AMS.

The Site Manager shall notify the AC of any issues arising from progress on site that could impact on canopies or RPAs of retained on and off site trees not covered in this AMS. The AC will then determine whether a site visit is required or matters can be dealt with by telephone/email. Should circumstances require changes to tree protection measures or layouts that could affect trees then the AC will discuss these with the Council Tree Officer and agree any variations necessary and revisions to the AMS or TPP.

Where any works are carried out on site that deviate significantly from this AMS that would jeopardise tree health or stability the AC will report the incident and circumstances to the Council Tree Officer. An appropriate mitigation programme will be agreed and communicated to the client and Site Manager for implementation.

4. ARBORICULTURAL WORKS

The tree works required in association with the permissioned development are now listed below. These include essential safety works.

No other trees/shrubs are to be removed or pruned without reference to the AC.

An appropriately qualified and insured tree surgery company will undertake all recommended felling and tree surgery works to the requirements of BS3998:2010.

No fires or chip piling to occur within 5m of the drip line of any tree canopy or within 15m of any tree stem, whichever is the further.

Stumps of all trees within 10m of retained trees to be ground out using pedestrian guided wheeled/tracked grinding machines.

Prior to tree surgery/felling works commencing, the trees for works should be checked for the presence of nesting birds or bats. Disturbance of nesting birds or bats could represent an offence and result in prosecution under the Wildlife and Countryside Act 1981.

Table: Tree Work Requirements

Tree No.	Species	Works required
G1	Cypress, Portugal Laurel	Fell all and remove stumps.
T3	Holly	Fell to ground level and carefully excavate stump.
G6	Holm Oak, Sycamore, Cherry Laurel	Cut back overhanging foliage to boundary to 4m above ground level.
T7	Sycamore	Cut back overhanging fine branches to boundary below 4m height.
T8	Sycamore	Cut back overhanging fine branches to boundary below 4m height.
T9	Oak	Cut back overhanging fine branches to boundary below 4m height.
T10	Sycamore	Cut back overhanging fine branches to boundary below 4m height.
T11	Beech	Raise crown base to 4m by removing low hanging fine branches. Reduce back fine branch tips to west to 8m radius from stem.
T12	Oak	Raise crown base to 4m by removing low hanging fine branches. Reduce back fine branch tips to south-west to 7m radius from stem.
T19	Pissard Plum	Cut back dying/dead branches to boundary.

5. TREE PROTECTION FENCING

Protective fencing to be erected at indicated locations on the TPP once tree works are completed and prior to demolition works commencing.

Fencing to comprise scaffold uprights driven into the ground to circa 60cm depth with a maximum of 3m spacing between uprights. To the uprights weldmesh panels, such as "Heras" or similar products, are to be firmly attached using scaffold clips. Fencing to produce enclosed zones around individual or linear runs of trees with notices placed on every 5th panel saying "Protected Zone – Keep Out" or similar. The existing fencing around the stem of T11 is to be retained, if practical. If removed then a stem box comprising a wooden frame and faced in OSB/Plywood from ground level to 2m is to be constructed around the stem. No framing is to be attached to the stem.

No access will be allowed within areas protected by fencing. The storage of potentially injurious materials such as fuels, oils, chemicals and cement will be kept at least 15m from any stem or outside protective fencing areas, whichever is the greatest distance. Alternatively, storage within a bunded storage vessel may be acceptable.

Within the fenced areas no changes in levels will be allowed, either increase or decrease. All material storage will be kept outside of fenced areas with storage zones to be determined by the Site Manager.

Protective fencing will be removed only upon completion of construction and hard landscaping once all machinery has been removed from site.

6. GROUND PROTECTION MEASURES

To allow for safe working space, it will be necessary for the set back of fencing to occur where indicated by hatching on the TPP in accordance with section 6.2.3 "Ground protection during demolition and construction" of BS5837:2012. The areas shown hatched yellow on the TPP are to be covered in a geotextile, over which 100mm of woodchip is to be placed, topped with minimum 12mm thickness non slip surfaced man made boards or side butting scaffold boards. If machinery access is required interlocking temporary road plates are to be utilized.

The ground protection measures will be installed at the same time as the protective fencing, prior to demolition and commencement of ground works. They will stay in place until completion of construction and hard landscaping.

For the area hatched red on the TPP between T7 and stem of T11 ground protection measures are to comprise interlocking road plates. Alternatively, the no dig drive and parking system detailed below will be installed to a working surface prior to any demolition/site clearance to provide a load spreading running surface for the duration of the work with the finished surface added at the landscaping phase.

7. INSTALLATION OF NO DIG ACCESS DRIVE TO EAST SIDE OF BUILDING

The area for this installation is indicated by red hatching on the TPP.

The area is to be hand tool raked/scraped to remove all loose vegetation, debris and loose soil/stone.

Once cleared a geotextile (see engineering detail for specific product) will be laid and pinned in place where edging is required this should comprise timber peg and board.

Over this either a 150mm thick Geoweb or interlocking EcoGrid (see engineering detail for specific product) will be laid out by hand in accordance with manufacturers specifications. The cells are to be filled with no fines angular stone working from the north end south, with no machinery or vehicles passing over exposed soils or unfilled cells. A second geotextile will then be laid and a working layer of upto 200mm thick stone/hardcore laid.

This will be utilised for the duration of the demolition/construction works with the working layer removed when landscaping works are ready to commence.

The removal of the working surface should be from the south working north. The finished gravel surfacing will then be laid.

8. REMOVAL OF FOUNDATIONS FOR REAR PARKING AREA

If logistically feasible the foundations to the existing extension structure to be removed to form the parking bays to the rear of the building should be left in situ and only broken out to just below surrounding ground level to avoid potential tree root disturbance.

If foundation removal is necessary, they should be carefully picked out/dug out by a machine positioned within the building footprint. No excavation is to occur below the foundation depth or outside the foundation footprint within the indicated RPAs of trees T9 and T11.

9. INSTALLATION OF MINIMAL DIG PARKING BAYS TO WEST WITH RPA OF T2

Site investigations have identified roots from T2 Horse Chestnut, at a depth of 20cm below ground level (see attached "Report on Investigations for Root Presence" in Appendix 2).

A maximum dig depth of 15cm is to occur with hand tool works only within the indicated RPA of T2 or machine excavation only if supervised by an AC.

No machinery or materials to pass over exposed soils.

Once cleared a geotextile (see engineering detail for specific product) will be laid and pinned in place.

Over this either a 100mm thick Geoweb or interlocking EcoGrid (see engineering detail for specific product) will be laid out by hand in accordance with manufacturers specifications. The cells are to be filled with no fines angular stone working from nearest the boundary wall eastwards, with no machinery or vehicles passing over exposed soils or unfilled cells. The finished gravel surfacing will then be laid.

The tie in of levels will be achieved by grading the tarmac parking level to match that of the minimal dig parking bays within the RPA of T2. For the no dig surfacing to the east existing levels are below that of the existing tarmac surfacing and the new build up will be brought up to the existing levels.

10. RESURFACING OF EXISTING TARMAC AND PARKING AREAS

The existing tarmac surfacing is to be utilised as load bearing operational space during the demolition/strip out and construction works.

No excavation of the existing surfacing below its sub base is to occur. Provided the existing sub base is retained any replacement surfacing will not impact on tree root systems.

11. SITE SETUP AND OPERATIONS

Temporary site cabins/welfare units are already on site and in the locations indicated in the supplied Eden London UK Ltd "Construction Management Plan".

The existing tarmac surfacing will be utilised for all vehicle/machinery parking/movement and temporary waste/materials storage.

12. INSTALLATION OF SERVICES

Where possible, existing services should be utilised. If this is not practical, then new service runs will need to enter the site outside indicated RPAs for traditional trenching installation.

If it is necessary for services/drainage to be brought in within a tree RPA, the trench will need to be hand excavated or air spaded to avoid damaging tree roots. Any excavations within indicated tree RPAs will be undertaken to the requirements of NJUG Volume 4.

13. ARBORICULTURAL MONITORING AND SUPERVISION OF WORKS

As indicated in Section 3 a precommencement meeting with the Council Tree Officer and the Site Manager will be held once the tree protection measures have been installed.

Subsequent to commencement monthly monitoring visits will be undertaken to inspect the tree protection measures with statements and photographs submitted to the Council Tree Officer following each visit.

Monitoring will continue until completion of the construction and landscaping works.

The following works will require on site supervision by the AC:

- Machine removal of upper 15cm of soil/turf for parking bays within RPA of T2.
- Any hand tool/airspade trenching for services/drainage within tree RPAs.
- Installation of the parking bays within the RPA of T2 and installation of no dig surfacing along eastern boundary.

Tim Laddiman
Chartered Arboriculturist
Broad Oak Tree Consultants Ltd.

AMS

APPENDIX 1

- 0 BS Condition A
T5 BS Condition B
T3 BS Condition C
T19 BS Condition U

- Crown spread
BS Calculated root protection areas
Tree to be removed for safety/short lifespan
Tree to be removed for development
Protective fencing location
Ground protection

TREE PROTECTION INFORMATION

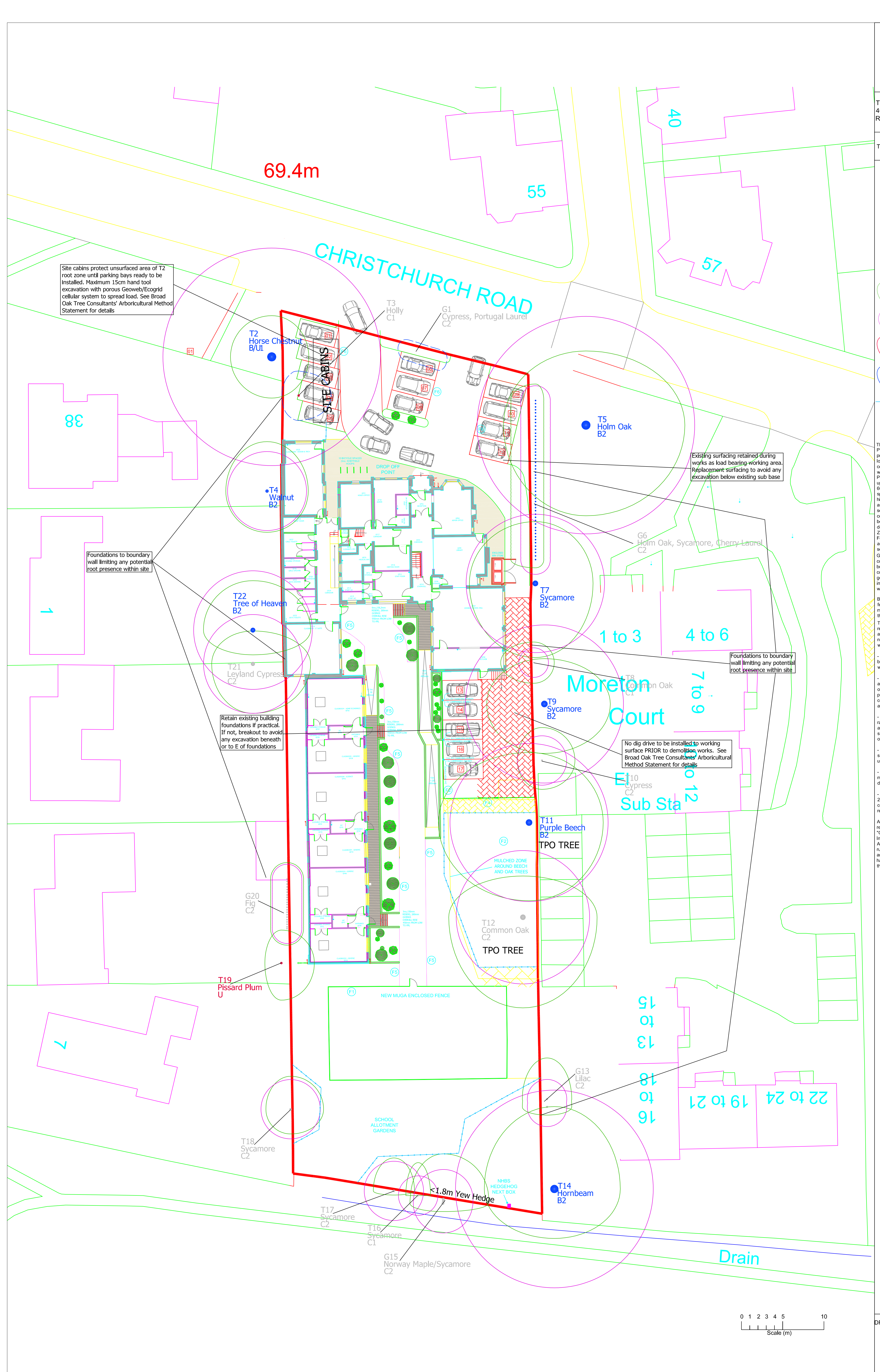
Protective fencing and ground protection measures to be installed at locations specified prior to commencement of any demolition works.
Protective fencing to comprise scaffold uprights driven into the ground to 60cm, depth at no more than 3m, spacing. Upright to be braced within high usage/construction/demolition areas. Weldmesh panels to be securely fixed to uprights to produce a continuous barrier. Waterproof signs to be attached to every 5th panel declaring "TREE ROOT PROTECTION ZONE - KEEP OUT" or similar wording. Fencing to be constructed in accordance with fig. 2 or fig. 3 of section 6.2 of BS5837:2012. Ground protection measures to comprise a single thickness of side butting scaffold boards over a 100mm compressible layer laid onto a geotextile. For machinery access, interlocking metal/plastic road plates will need to be used.

Buildings in proximity to protective fencing areas to be demolished by machinery pulling walls inwards onto the building footprint.

The fenced protection zones around retained trees, hedges and shrubbery are to be regarded as sacrosanct and none of the following are to occur within these areas:

- Storage or disposal of any soil, building materials, machinery, fuel or waste residues of any description.
- Siting of any temporary structures of any description including site office/sales buildings, temporary car parking facilities, porta-loos, storage compounds or temporary hand standing areas.
- Excavations, soil/turf stripping, raising/lowering of existing levels or alterations to the existing natural surfaces/ground conditions of any other description.
- Location of temporary drainage, water supplies or any other temporary underground services.
- No use, movement or parking of any machinery or vehicles of any description.
- Additionally, no fires shall be lit within 20m. of the trunks of any trees or the centre line of any hedgerow to be retained.

All services to be installed to the requirements of NUGS Volume 4 "Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees". Any runs within retained tree root protection areas to either be bored/moled or any hand excavation to be supervised by the Arboricultural Consultant



AMS

APPENDIX 2



Broad Oak Tree Consultants Limited
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REPORT ON INVESTIGATIONS FOR ROOT PRESENCE

AT

**THE PHOENIX SCHOOL
40 CHRISTCHURCH ROAD
READING
RG2 7AY**

BY

**Tim Laddiman
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Chartered Arboriculturist**

**Our ref: J64.56
11th December 2023**

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APPENDICES:

1. TRIAL TRENCH/PIT LOCATION PLAN, DRAWING NO. J64.56/03
2. SECTION AND PHOTOGRAPHS

1. INTRODUCTION

- 1.1 Broad Oak Tree Consultants Ltd. received instructions to advise and oversee hand tool investigations to identify root presence in the location of permissioned parking bays within the theoretical rooting zone of an offsite tree at The Phoenix School, 40 Christchurch Road, Reading, RG2 7AY.
- 1.2 The parking bays are within the theoretical rooting zone of a large offsite mature Horse Chestnut tree referred to as T2. It is separated from the site by a large brick wall. The relative relationships are indicated on the attached Trial Trench/Pit Location Plan, drawing no. J64.56/03 in Appendix 1. This is an extract of the Tree Protection Plan, drawing no. J64.56/02 Rev. B. The adjoining Holly tree (T3) is listed for removal within the scheme.
- 1.3 The works were undertaken on 27th November 2023.

2. POSITIONING OF TRIAL TRENCH/PIT

- 2.1 A single trial pit was excavated against the boundary wall adjoining a pillar and right angle change in wall alignment outside the site. This trial pit was excavated to determine foundation depths to the wall.
- 2.2 A single 3m long trial trench was excavated along the nearest end of the permissioned parking bays adjoining T2. It was positioned 3.5m from the Holly (T3) to minimise potential root presence from the Holly.
- 2.3 The positions of the excavations are indicated on the above referenced Trial Trench/Pit Location Plan in Appendix 1.

3. EXCAVATION WORKS

- 3.1 The trial trench/pit were excavated by hand tools under the supervision of Tim Laddiman, BSc.(Hons) M.I.C.For. M.Arbor.A., Chartered Arboriculturist and Principal Consultant of Broad Oak Tree Consultants Ltd.
- 3.2 The soil was first loosened with a garden fork to check for root presence, with the loosed soil removed by spade or trowel. Where roots of less than 10mm diameter were encountered these were either severed or loosened and moved aside.
- 3.3 Where roots of 10mm+ diameter were encountered these were carefully excavated around using a trowel and small mattock.
- 3.4 The trial pit was excavated to the base of the wall foundation.
- 3.5 The trial trench was excavated to 30cm width and 40cm depth, where practical.
- 3.6 Once completed all roots larger than 10mm diameter were recorded and photographed. The trial trench/pit were then backfilled to avoid potential drying out of roots or frost damage.

4. FINDINGS OF EXCAVATIONS

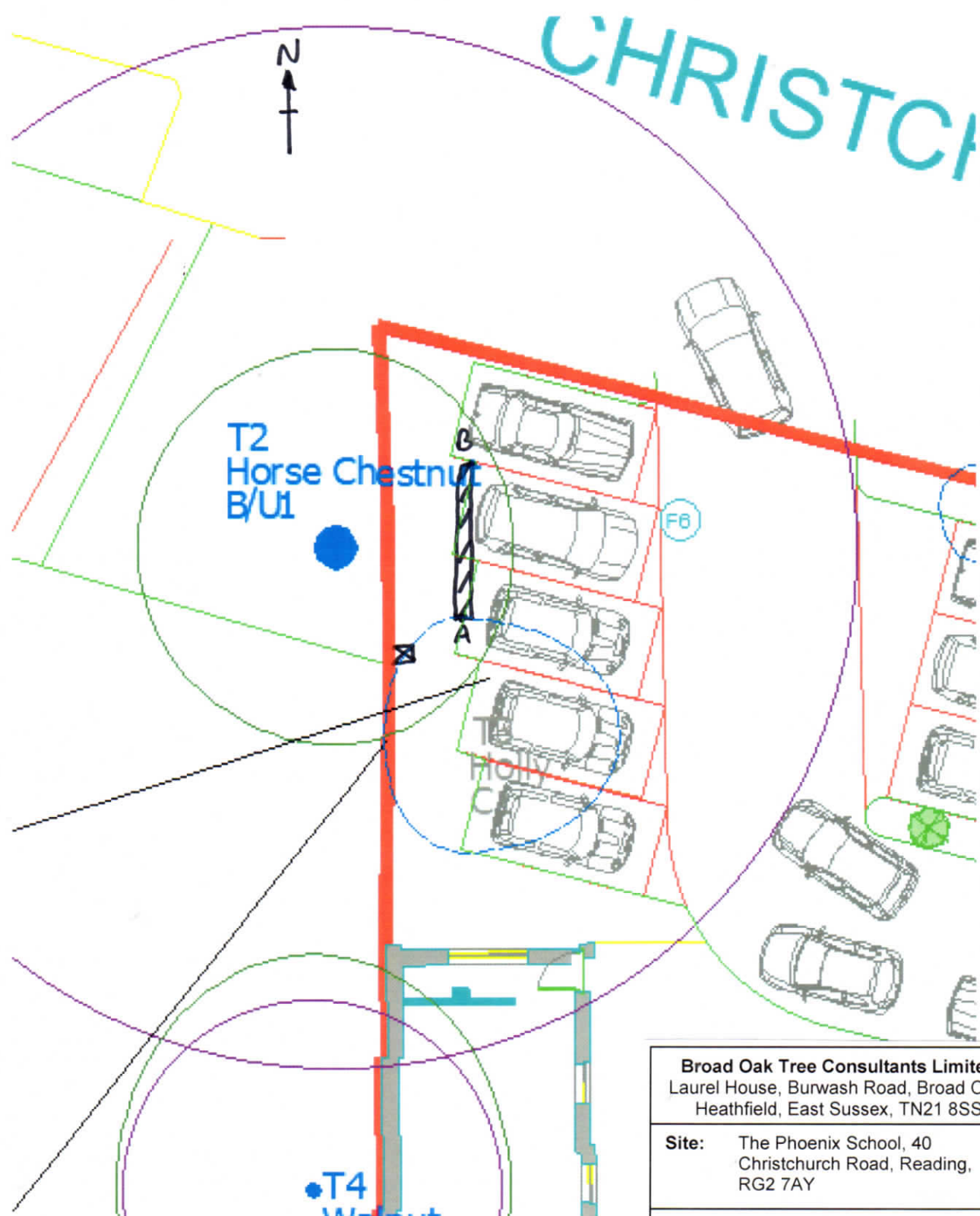
- 4.1 Within the trial pit the base of the wall foundation was located at 60cm depth below ground level.
- 4.2 At the base of the foundation a 60mm diameter root was identified passing beneath the foundation at right angles to the wall.
- 4.3 Within the 3m trial trench nine roots of over 10mm diameter were exposed, ranging from 14mm-60mm diameter.
- 4.4 All were located at depths of 20cm-30cm. At least three of the roots were identified as emanating from the Holly (T3) as they got narrower the further from the Holly and crossed the trench at a 45° angle getting narrower in diameter the closer to the wall they were.
- 4.5 The findings of the excavation were indicated in the section and photographs in Appendix 2.

5. CONCLUSIONS

- 5.1 Roots from T2 Horse Chestnut have passed beneath the boundary wall but are present in limited numbers and at depths of greater than 20cm. Root diameter varies from 14mm-60mm with only fine/hair roots of less than 5mm diameter present above and between the main identified roots.
- 5.2 A number of the roots present clearly emanated from the Holly (T3), which is to be removed.
- 5.3 In relation to the permissioned parking spaces it is considered that a maximum excavation depth of 15cm would be acceptable to avoid damaging the main roots identified.
- 5.4 The parking spaces should be formed to a load spreading, porous design to avoid soil compaction and changes in hydrology.

Tim Laddiman
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APPENDIX 1



Broad Oak Tree Consultants Limited
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 Heathfield, East Sussex, TN21 8SS

Site: The Phoenix School, 40
 Christchurch Road, Reading,
 RG2 7AY

Title: TRIAL TRENCH/PIT
 LOCATION PLAN

Key:



Trial Trench Location



Trial Pit Location

Plan extract from Tree Protection Plan,
 BOTC drawing no. J64.56/02

Scale: NTS **Date:** 11.12.2023

DRAWING NO.: J64.56/03

APPENDIX 2

PHOTOGRAPHS



Excavation of trial trench in progress.
Holly T3 to rear of person. Boundary wall to right.



Completed trench with exposed roots.

T3 HOLLY

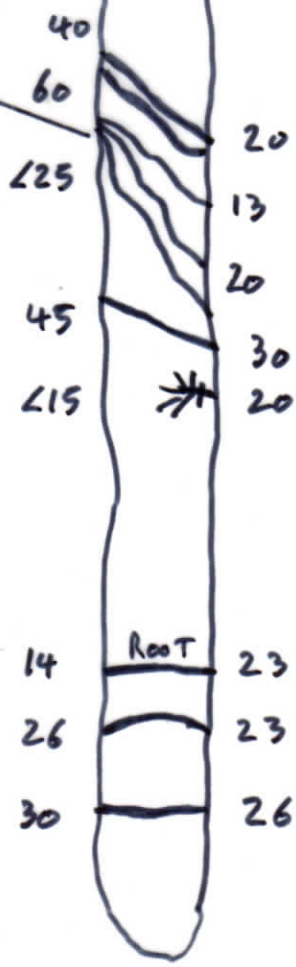


A

DEPTH (CM)

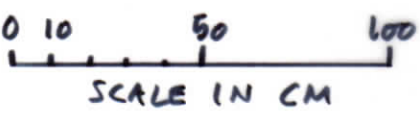
ROOT
DIAMETER
(MM)

ROOTS FROM T3 HOLLY
- NARROWER
TOWARDS WALL



ONLY FINE/HAIR
ROOTS < 5mm DIAMETER
ABOVE AND AROUND
MAIN ROOTS

W
A
L
L



TRIAL TRENCH SECTION