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Arboricultural Impact Assessment

Land at Latimer Road,
Wokingham, RG41 2WA

March 2023

Arboricultural Impact Assessment

Latimer Road, Wokingham

21/03/2023

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1. Executive Summary

- 1.1 Phlorum has been instructed by Burlington Property Group to provide an arboricultural impact assessment and arboricultural method statement to support a planning application for the demolition of existing buildings and erection of a two to four storey building providing 44 residential dwellings, with associated communal amenity space, car and cycle parking and refuse storage facilities.
- 1.2 This report complies with the planning policies of Wokingham Borough Council and complies with the recommendations of British Standard BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations.
- 1.3 The survey was carried out on 1st November 2022. The tree constraints plan and tree survey schedule can be found at Appendix A and Appendix B respectively.
- 1.4 Few trees are located within the site. Most trees are located around the site boundaries within the gardens of third-party residential properties. The key arboricultural feature at the site is pedunculate oak T1, which is located near the south-east corner and is protected by a tree preservation order. This is a large and good quality specimen, which is recorded in the Woodland Trust Ancient Tree Inventory to be a veteran tree. T1 does not have veteran characterises such as dead wood, cavities/stem hollowing, crown retrenchment (although the crown has been relatively heavily reduced), therefore this designation must be based on the large stem girth (4m).
- 1.5 The proposed layout has been overlaid with the tree constraints plan in order to identify the impacts to the trees to inform this impact assessment and this information has formed the basis of the tree retention plan at Appendix C, the root protection area incursions plan at Appendix D and the tree protection plan at Appendix E.
- 1.6 Seven individual trees and five tree/shrub groups require removal to facilitate the proposals. Of these, one tree is assessed as a category B specimen, five trees and the five tree/shrub groups are assessed as category C specimens and one tree is assessed as a category U specimen. The key arboricultural feature of the site (T1) will be retained.
- 1.7 The proposals include the installation of drainage features as well as the removal, replacement and addition of hard standing within root protection areas. The engineered solutions as well as sympathetic construction methodologies described in this report must be implemented to minimise the impact of these works.
- 1.8 Subject to the generic and specific tree protection measures recommended within the arboricultural method statement at section 3 of this report being adhered to, I consider that the proposals represent a minor impact on the amenity of the locality in so far as it is contributed to by trees.

2. Introduction

Instruction

- 2.1 Phlorum has been instructed by Burlington Property Group to provide an arboricultural impact assessment and arboricultural method statement to support a planning application for the demolition of existing buildings and erection of a two to four storey building providing 45 residential dwellings, with associated communal amenity space, car and cycle parking and refuse storage facilities.
- 2.2 This report complies with the planning policies of Wokingham Borough Council and complies with the recommendations of British Standard BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations (the British Standard).

Objectives of Report

- 2.3 This report has been undertaken with the following objectives:
- To identify the tree removals and pruning works that will be required as a result of the proposed development and to assess the impact of the tree works.
 - To assess the potential impact the proposed construction works will have on retained trees and provide recommendations for mitigation measures to reduce the impact on the trees.
 - To provide a protection methodology for retained trees throughout the demolition and construction period, including the above ground and below ground parts of the trees as well as their rooting medium.

Contents of Report

- 2.4 This report includes following objectives:
- A tree constraints plan and tree survey schedule at Appendices A & B respectively.
 - An arboricultural impact assessment at section 2, a tree retention plan at Appendix C and a root protection area incursions plan at Appendix D.
 - An arboricultural method statement at section 3 and a tree protection plan at Appendix E.

Documents and Information Provided

- 2.5 The following documents were used to aid the preparation of this report:

- Topographical Survey Ref: 45114CVLS-01
- Drainage Strategy Ref: 2204700-001
- Proposed levels Plan Ref: 21261_230
- Landscape Masterplan Ref: 1671 L90-200 Rev D
- Community Garden Ref: 1671 L90-400 Rev C
- Wildlife Garden Ref 1671 L90-401 Rev C

Limitations of Report

- 2.6 The following arboricultural impact assessment and method statement have been prepared for the proposal stated in section 1.1 and using the plans and information listed in section 2.5. The report should not be relied upon if the stated proposal or proposed design changes unless the author confirms the changes do not have a bearing on the arboricultural impacts or recommended mitigation measures.

3. Arboricultural Impact Assessment

Site Visit

- 3.1 The survey was carried out on 1st November 2022. The tree constraints plan and tree survey schedule can be found at Appendix A and Appendix B respectively.
- 3.2 Few trees are located within the site. Most trees are located around the site boundaries within the gardens of third-party residential properties. The key arboricultural feature at the site is pedunculate oak T1, which is located near the south-east corner and is protected by a tree preservation order. This is a large and good quality specimen, which is recorded in the Woodland Trust Ancient Tree Inventory to be a veteran tree. T1 does not have veteran characteristics such as dead wood, cavities/stem hollowing, crown retrenchment (although the crown has been relatively heavily reduced), therefore this designation must be based on the large stem girth (4m).

Tree Proposals

- 3.3 The proposed layout has been overlaid with the tree constraints plan in order to identify the impacts to the trees to inform this impact assessment and this information has formed the basis of the tree retention plan at Appendix C, the root protection area incursions plan at Appendix D and the tree protection plan at Appendix E.
- 3.4 A summary of the proposal is to replace the existing commercial building with a residential building in a similar footprint, with gardens to the rear and a parking area to the front, including new parking attached to the access road into the site. A communal garden will be provided on the northern site boundary and a wildlife garden will be provided at the south end of the site, surrounding T1. The footprint of the proposed building adjacent to T1 will be smaller than the existing building and has been moved further away from the tree following comments from the tree officer. This will now allow the building to be constructed without access facilitation pruning T1 and to reduce future pressures on the tree.

Tree Removals

- 3.5 Trees to be removed for the proposed development are shown with dashed outlines on the tree retention plan at Appendix C and are shaded to indicate their BS5837 tree category. A summary is listed at Table 1 below.

Table 1: Tree removals summary

Tree number	Species	Category	Reason for tree removal
G4	Cherry laurel	C1+2	G4 will be removed to accommodate the new nature garden at the south end of the site.
T8	Hawthorn	C2	T8 will be removed to enable demolition of existing hard standing and creation of new communal garden area.
G9	Mixed (buddleia, hazel)	U	G9 will be removed to enable the creation of the new communal garden area.
G14	Mixed (buddleia, hazel, privet)	C1	G14 will be cleared back to the site boundary to enable construction of new parking bays.
T15	Ash	U	T15 has Ash Dieback and conflicts with a new parking bay.
T16	Ash	C1	T16 conflicts with a new parking bay.
G17	Mixed (hazel, elder, firethorn, Norway maple, yew)	C2	G17 will be cleared back to the site boundary to enable construction of new parking bays.
T18	Ash	C1+2	T18 directly conflicts with a new parking bay.
T19	Oak	B2	T19 directly conflicts with a new parking bay.
T20	Ash	C2	T20 directly conflicts with a new parking bay.
T23	Hazel	C1	T23 directly conflicts with a new parking bay.
G24	Hazel	C1	G24 directly conflicts with a new parking bay.

- 3.6 The key arboricultural feature at the site (TPO oak T1) will be retained and protected during the development. The detailed soft landscape proposals for the proposed development are to be confirmed on the date of this report but could readily be secured by a planning condition. The landscape masterplan includes two garden areas, both of which have the potential to support new tree planting. Care should be taken to avoid planting large trees too close to T1 that could provide competition for space/light and nutrients in maturity.

Access Facilitation Pruning

- 3.7 A summary of the pruning required to enable the proposals is shown at Table 2 below.

Table 2: Summary of access facilitation pruning

Tree number	Species	Works required
H3	Leyland cypress	Trim lateral growth over site to boundary fence.
G5	Mixed (ash, hazel, oak, buddleia)	Reduce crowns to site boundary.
T6	Ash	Crown lift to 3m over site.
T7	Ash	Crown lift to 3m over site.
T21	Norway spruce	Crown lift to 4m over site to enable construction of parking bay.
G22	Leyland cypress	Crown lift to 4m over site to enable construction of parking bay.
T25	Copper beech	Crown lift to 4m over site to enable vehicular access beneath crowns.
T27	Copper beech	Crown lift to 4m over site to enable vehicular access beneath crowns.

Tree number	Species	Works required
T29	Saucer magnolia	Crown lift to 4m over site to enable vehicular access beneath crowns.
T30	Copper beech	Crown lift to 4m over site to enable vehicular access beneath crowns.

- 3.8 All tree works are to be carried out in accordance with BS3998: 2010 Tree works – Recommendations.
- 3.9 Based on the information currently available, it is anticipated that the crowns of all remaining retained trees will be located a sufficient distance from proposed construction activities and expected construction access routes so as not to require pruning.
- 3.10 The above specifications for access facilitation pruning along with any additional requirements that cannot be predicted at this stage in the design process (e.g. for contractor compound or movement of large or specialist plant machinery) shall be discussed at the pre-commencement meeting with the project arboriculturist and agreed with the local authority arboricultural officer. No works may be carried out on protected trees without prior permission from the local authority.

Building Footings in Proximity to Trees

- 3.11 The proposed building will be located outside the root protection areas of all retained trees. It will sit within the existing footprint of the current building adjacent to T1 (the root protection area of T1 has been amended to exclude the existing building footprint). The use of specialist foundations for root protection is therefore not deemed necessary.
- 3.12 NHBC guidelines on foundation depth in proximity to trees should be followed. This will be determined by a structural engineer and should be guided by information in this report as well as appropriate sampling to determine soil profiles at the site.

Hard Standing in Proximity to Trees

- 3.13 The proposals require new hard standing to be constructed within root protection areas as well as existing hard standing to be removed or replaced, notably within the root protection area of T1 where a significant area of tarmac will be replaced with soft landscaping. This must occur very carefully as described in the arboricultural method statement to avoid damage to the tree, but in the long term should have a positive impact on the condition of the rooting medium by improving drainage and gaseous diffusion into the soil. The existing hard standing will be removed from the area hatched blue on the root protection area incursions plan.
- 3.14 Existing hard standing will be replaced with new hard standing within the root protection areas of T1, T21, G22, T25, T27, T28, T29 and T31 (all third-party trees except for T1) in the areas hatched brown on the root protection area incursions plan. The replacement surface in these areas must be at the same or higher level than the existing to avoid damaging shallow roots (the proposed levels shown on the root protection area incursions plan show this will occur). The methodology for replacing existing hard standing is described in the arboricultural method statement.
- 3.15 New hard standing predominantly for use as parking bays will be constructed within the root protection areas of third-party trees T21, G22, T25, G26, T27, T28, T29 and T30 in the areas hatched green on the root protection area incursions plan on previously unsurfaced ground. Where hard standing is constructed within the root protection areas of retained trees, an engineered solution is required to mitigate harm to the roots and the viability of the rooting medium. The design of the hard standing should therefore result in the following three outcomes:
- The hard standing must be constructed without the need to sever or prune shallow roots (most tree roots are usually found near to the surface and the new hard standing extends close to the base of several stems where the main structural root plate will be found).
 - Compaction of the underlying soil should be avoided both during the construction period and post development.
 - The hard standing should not significantly inhibit moisture ingress and gaseous diffusion into or out of the soil.
- 3.16 The detailed specification for the new hard standing to be constructed within the above root protection areas shall be provided by an engineer but must be signed off by the project arboriculturist before implementation to ensure the roots and rooting medium are adequately protected. To achieve the three outcomes described above, the design for hard standing within root protection areas must adhere to the following basic specification (see also Appendix F):

- Within the root protection areas, the new hard standing shall be constructed directly onto the existing ground level without soil stripping. The surface vegetation (e.g. grass sward) shall be carefully removed using hand tools but the underlying soil must be fully retained and protected. If necessary, a layer of sharp sand (or other inert granular fill) may be used to fill divots to create a level surface onto which the hard standing can be constructed.
- The hard standing must be constructed onto a three-dimensional cellular confinement system (such as CellWeb TRP or equivalent product signed off by the project arboriculturist) filled with no-fines angular stone. This will provide a permeable base for the surface that will spread loads to reduce compaction of the soil beneath (compacting the rooting medium will have a significant detrimental impact on root function and the health of surrounding trees).
- CellWeb TRP is available from 75mm-200mm depth, depending on the soil conditions and the load it is designed to support (200mm will likely be very excessive for car parking bays). Further guidance should be sought from the geocell manufacturer when specifying the detailed surface design. In some cases, it may be necessary to lay additional sub-base beneath the cellular confinement system, however this must also be permeable and laid onto the existing ground.
- The cellular confinement system shall be installed directly onto a geotextile membrane (such as a TreeTex® 300). A second membrane shall be installed above the cellular confinement system as well. These membranes will prevent soil, construction debris and other materials migrating through the cellular confinement system, which would otherwise impact on the porosity of the completed surface. The membranes should also help filter pollutants from vehicles leeching into the rooting medium.
- The wearing course for the new surface must be permeable (permeable block paving is proposed on the landscape masterplan and drainage strategy) to allow continued moisture ingress and gaseous diffusion with the rooting medium.
- Although a three-dimensional cellular confinement system should not in itself require edge supports (peg and board edging may still be used to provide rigidity for the cellular confinement system), edge restraints will be needed for the block paving wearing course. Standard kerb stones set in concrete haunches that are usually dug into the ground will not be suitable for use within root protection areas due to the likely damage to shallow tree roots. As an alternative, one of the following edging types may be used:
 - Standard concrete kerbs on concrete-filled geocells at the edge of the cellular confinement system.
 - Small concrete kerbs set in concrete (above existing ground level) and potentially also pegged into place.

Services

- 3.17 The proposed drainage strategy is shown on the root protection area incursions plan. This includes the installation of surface water pipes within the root protection areas of T1, G5 and T6, and an attenuation tank within the root protection areas of T21 and G22.
- 3.18 Installation of the pipes within the root protection areas of T1, G5 and T6 must occur sensitively as described in the arboricultural method statement to ensure significant roots are not severed or damaged.
- 3.19 Due to the depth of the attenuation tank (0.8m plus ground cover and hard standing), it can be assumed that most roots within its footprint will be lost. This is not expected to have a significant impact on the trees as the attenuation tank will be located beneath the existing tarmac road into the site, where the condition of the rooting condition will likely be less favourable than the surrounding garden in which the trees are located. Also, the encroachment into each root protection area is relatively minor (T21 = 8.6m² or 15.5%, G22 south tree = 5.8m² or 8% and north tree 6.0m² or 8.3%).
- 3.20 Details of the routing of utility services for the proposed development are not currently available. These should be located outside the root protection areas of retained trees and above ground services should be located outside the anticipated mature crown spreads. Sympathetic methodology to enable the installation of services within root protection areas (in certain instances) is available, however there will always be a potential arboricultural impact and arboricultural advice must be sought regarding the suitability of these methods before they are relied upon. If it is achievable, root protection areas should always be completely avoided.
- 3.21 Once the detailed routing of all new services becomes available, prior to commencement, these shall be reviewed by the project arboriculturist. The arboriculturist shall then confirm either that no works will be carried out within root protection areas or provide details of the methodology required to ensure the works are carried out in accordance with NJUG4 'Guidelines for the planning, installation and maintenance of utilities in proximity to trees' and BS5837: 2012.

Landscaping in Proximity to Trees

- 3.22 New permanent fencing will likely be installed within the root protection areas of numerous trees within and adjacent the site (it is not currently clear how much of the boundary fences will be replaced). The fencing specifications are to be confirmed on the date of this report. Within root protection areas a fencing type that requires only postholes (no trenching) must be used. The level of the fences must also follow existing ground levels as there may be no re-grading of levels within root protection areas.

- 3.23 It is required for the area surrounding T1 to be used as public amenity space, so additional footfall around the tree will be inevitable. To discourage pedestrian access around the base of the tree and within the root protection area which could compact the rooting medium and reduce root function, it is proposed to construct a raised timber walkway to a garden bench as shown on the tree retention plan. The walkway will be located above the existing ground level without regrading levels so the only excavation will be for timber support posts. These must be installed as described in the arboricultural method statement.

Post Development Tree Pressures and Management

- 3.24 The proposed development has been assessed to determine the likely impact of tree shade, and also the likely future pressure to prune or remove additional trees.
- 3.25 T1 will be located to the south-east of a residential dwelling, however, should not pose a notable shading constraint. No windows are proposed on the wall facing south-east which could be shaded by the tree, which should also help reduce future pressures on the tree by avoiding people looking directly out of the dwelling onto the crown. The new building footprint has been moved further from the tree to avoid the need to pruning during the development and further reduce the potential for post development pressures from occupants of the adjacent dwelling.
- 3.26 None of the proposed dwellings are expected to be shaded by the remaining trees at the site to the extent that it inhibits future residents reasonable use or enjoyment of the properties, thereby leading to pressure to fell or severely prune the trees in a manner the local planning authority could not reasonably resist.

4. Arboricultural Method Statement

General Requirements

- 4.1 The arboricultural method statement and tree protection plan shall remain on site for the duration of demolition, construction and landscaping works and be available to site operatives at all times. All operatives at the site shall be briefed about tree related factors as part of their site induction.
- 4.2 Any variation from the methodology described in this method statement shall be discussed with the supervising arboriculturist and agreed with the local authority arboricultural officer.

Phasing of Works

- 4.3 To ensure trees are protected throughout the development, the proposed development shall occur in the following order:

Table 3: Summary of surfacing encroachments percentages

Works order	Operation	Notes
1	Initial tree works.	The tree works contractor shall undertake the tree removals and access facilitation pruning specified in the arboricultural impact assessment.
2	Installation of tree protection barriers.	Tree protection fencing shall be installed adjacent to T1 and T21-T30 to the specification described in this method statement. Temporary ground protection shall also be installed adjacent to G5 and T6.
3	Pre-commencement meeting.	The project arboriculturist shall attend a site meeting with the site manager. The local authority arboricultural officer shall be notified so they may also attend. The above pre-start arboricultural works shall be signed off during the meeting. The meeting shall occur before any plant activity, ground works or demolition/construction activities begin.

Works order	Operation	Notes
4	Demolition phase.	Additional temporary ground protection shall be installed in the root protection areas of T1 and T21-T31 as the existing car park surface is removed. Removal of the tarmac storage area within the root protection area of T1 must occur under arboricultural supervision.
5	Construction phase.	The tree protection fencing/temporary ground protection adjacent to T21-T30 and the temporary ground protection adjacent to T1 shall be removed immediately prior to the construction of the replacement/new hard standing.
6	Landscaping phase.	The remaining tree protection barriers shall be dismantled when external construction and hard landscape operations have been completed and plant machinery or excess construction materials have been removed from site. The raised timber walkway adjacent to T1 shall be constructed during the landscaping phase of development. Soft landscape operations shall occur sensitively as described in this method statement.

Initial Tree Works

- 4.4 The tree removals and access facilitation pruning specified in the arboricultural impact assessment shall be carried out as the first stage of development. Any additional requirements for access facilitation pruning that are not identified until the construction period must first be agreed with the local authority arboricultural officer.
- 4.5 Tree stumps and vegetation located within the root protection areas of retained trees shall be cleared with controlled hand tools (e.g. stump grinder/brush cutter). Plant machinery shall not be used to scrape vegetation, 'grub out' stumps within root protection areas, or access the site until the tree protection barriers have been installed.
- 4.6 No bonfires shall be lit within the site to dispose of arisings from the initial tree works.

- 4.7 Trees should be checked for protected species before works are undertaken. It is against the law to disturb bats or their roosts under the Conservation of Habitat and Species Regulations. Nesting birds are protected by the Wildlife and Countryside Act. If protected species are discovered, Natural England should be contacted for advice.
- 4.8 The tree works contractors should carry out all tree works to BS3998: 2010 Tree works – recommendations as modified by research that is more recent. They should also carry relevant, adequate and up to date insurance.
- 4.9 It is suggested that an Arboricultural Association approved contractor carry out all tree works. Approved contractors are expected to work to industry best standards. The Arboricultural Association website (www.trees.org.uk) contains contact details and information on engaging a suitable contractor.

Tree Protection Barriers

- 4.10 The root protection areas of retained trees must be left free from disturbance, and protected from contamination or compaction during the proposed works. Protection shall comprise a combination of tree protection fencing and temporary ground protection.
- 4.11 The tree protection fencing shall be installed adjacent to T1 and T21-T30, and be signed off by the project arboriculturist before any plant activity, ground works or demolition/construction activities commence at the site.
- 4.12 The fencing adjacent to T1 shall be maintained in situ until the soft landscaping phase of development (other than during the supervised removal of hard standing from the root protection area) when all other construction activities in the vicinity have been completed, and excess construction materials and plant machinery have been removed from site. The tree protection fencing adjacent to T21-T30 shall be maintained until the new parking bays are constructed within the root protection areas.
- 4.13 Any damage that occurs to the tree protection fencing during the construction period must be rectified immediately, prior to other construction activities recommencing in the vicinity
- 4.14 The specification for tree protection fencing adjacent to T1 shall be heavy gauge, 2m tall galvanized tube and welded mesh panels, secured to standard scaffold pole uprights and cross-members with wire ties. The uprights shall be driven into the ground until secure (minimum of 0.6m) and supported by scaffold support bars that are clamped to further scaffold uprights (refer to Appendix G). Any variation from this specification for tree protection fencing shall be discussed with the project arboriculturist and agreed in writing with the local authority arboricultural officer.

- 4.15 The specification for tree protection fencing adjacent to T21-T30 shall be metal welded mesh panels (e.g. Heras panels), in concrete or rubber feet. The panels shall be supported by metal stabiliser struts mounted on either a base plate secured by ground pins, or in a block tray (refer to Appendix H). Any variation from this specification for tree protection fencing shall be discussed with the project arboriculturist and agreed in writing with the local authority arboricultural officer.
- 4.16 Signs shall be affixed to the tree protection fencing as shown in Appendix I to explain its purpose. The signs shall be affixed at a reasonable size and frequency to ensure they are easily visible to operatives at the site.
- 4.17 To create a usable workspace along the eastern boundary, within the root protection areas of G5 and T6, temporary ground protection shall be installed in the locations shown on the tree protection plan. The specification for ground protection shall be a single thickness of scaffold boards (or equivalent boards), on a compressible layer (100mm woodchip from the initial tree works or sharp sand), spread across a geotextile membrane. This specification is designed to support pedestrian loads only. If larger loads need to be supported, a more robust ground protection specification shall be agreed with the project arboriculturist.
- 4.18 Following removal of the existing tarmac surface within the root protection areas of T1 and T21-T31, and prior to construction of the replacement car park surface, temporary ground protection will also need to be installed in the locations shown on the tree protection area. This area shall likely be accessed by large plant machinery and construction traffic, therefore the ground protection specification shall adhere to one of the following:
- A cellular confinement system (such as CellWeb TRP or similar product agreed with the project arboriculturist and installed to the manufacturers specification) with a temporary surface such as a sacrificial geocell (if the lower geocell is later to be used as the base for permanent hard standing) or plastic/metal road plates.
 - A heavy-duty proprietary ground protection system adequate to support the anticipated range of construction traffic (provided by IsoTrack or similar product.
 - Pre-cast reinforced concrete slabs.
 - A bespoke ground protection system made to an engineer's specification and signed off by the project arboriculturist.
- 4.19 The areas protected by tree protection fencing or temporary ground protection shall be referred to as the construction exclusion zones. The following restrictions shall apply within the construction exclusion zones:
- No vehicular access shall be permitted unless on adequate ground protection measures that have been agreed with the project arboriculturist.
 - Regular pedestrian access shall be restricted unless on suitable ground protection measures agreed with the project arboriculturist.

- No storage of construction materials shall occur.
- No storage of spoil or construction debris (including short-term temporary storage) shall occur.
- No harmful chemicals shall be stored or handled.
- No fires shall be permitted.
- No mechanical excavation including regrading of levels shall occur.
- There shall be no change in ground level unless undertaken under the supervision of the project arboriculturist.
- No construction activities including installation of new permanent hard standing shall be undertaken unless otherwise specified in this method statement.

Storage and Handling of Harmful Chemicals

- 4.20 Provision must be taken to prevent the storage and handling of harmful chemicals within the root protection areas of retained trees. Harmful chemicals include fuels, oils, bitumen, builder's sand (which has a high salt content) and cement. Provision shall also be made to prevent the storage and handling of harmful chemicals in areas proposed for further planting if the existing soil is intended to be retained.
- 4.21 Cement mixing shall always occur outside the construction exclusion zones. If cement mixing is to occur close to the construction exclusion zones, or there is the potential for cement washings to leech into a root protection area, adequate, bunded ground protection measures must be used. This could comprise impermeable plastic sheeting under wooden boards (to prevent tears) surrounded by a raised lip.
- 4.22 All other chemicals that are harmful to trees must be stowed in suitable containers and stored away from the construction exclusion zones unless adequate, bunded ground protection measures are implemented to prevent spillages leeching into root protection areas.

Contractor Facilities

- 4.23 A suitable location for site cabins, contractor parking and site facilities for operatives shall be agreed with the project arboriculturist during the pre-commencement meeting if not already specified in a construction management plan that has been signed off by the project arboriculturist. These facilities must be located outside the root protection areas of all retained trees unless on adequate ground protection measures that have been signed off with the project arboriculturist (potentially including existing hard standing). Provision must be taken to prevent exhaust fumes or hot air from generators or kitchen facilities from damaging foliage within the crowns of retained trees.

Demolition of Existing Building Adjacent to T1

- 4.24 Demolition of the above ground parts of the building adjacent to T1 must occur carefully to avoid accidental contact with the tree. Where possible the building shall be dismantled by hand, however if plant machinery is used, a banksman must always be present to spot tree branches that are not visible to the machine operator. The machine must be of a reasonable size so it can be controlled safely in proximity to the tree, and must always be operated from outside the construction exclusion zone. Debris from the demolition works must also be stockpiled outside the construction exclusion zone.
- 4.25 The foundation of the building is located outside the root protection area of T1, but is close to the tree. Given the significance of the tree, a precautionary approach to the removal of the existing foundation must be taken. As such, a designated banksman must be present throughout the operation to spot any tree roots. If roots are spotted, the use of the machine must cease until the project arboriculturist has been consulted.

Services

- 4.26 A new surface water drainage pipe will encroach the root protection areas of T1, G5 and T6 in the areas hatched pink on the tree protection plan. Within the root protection areas, all excavation shall occur carefully using hand tools or an airspade. Roots revealed under 25mm diameter may be cleanly pruned using secateurs to leave the smallest feasible wounds. Roots over 25mm shall not be pruned unless the project arboriculturist has first been consulted.
- 4.27 Revealed roots that are to be retained shall immediately be wrapped in hessian cloth. This will help protect the delicate root bark during remaining excavation works and help prevent desiccation or frost damage if the excavation is left exposed for prolonged periods. The hessian cloth shall be removed when the trench is backfilled.
- 4.28 When the trench is backfilled, roots that are retained shall be surrounded by a small amount of inert granular material mixed with sharp sand or topsoil. This will help prevent damage to the roots if the soil is compacted when the trench is backfilled.
- 4.29 A new attenuation tank also partially encroaches the root protection areas of T21 and G22 as shown on the tree protection plan. As far as possible, and following removal of the tarmac wearing course, the first 600mm of the excavation within the root protection areas shall occur by hand (this will be dependant on the ground conditions under the road). Roots revealed shall be cleanly pruned using secateurs to leave the smallest feasible wound. Small clean pruning wounds require less energy from the tree to heal and reduce the chance of infection by tree pathogens. Roots over 25mm diameter must not be pruned unless the project arboriculturist has first been consulted to assess the potential impact on the trees.

Replacing/removing Existing Surfacing within Root Protection Areas

- 4.30 The existing tarmac surface within the root protection areas of T1 and T21-T31 shall provide ground protection for construction traffic. Vehicular access across the root protection areas shall be prohibited between the time the existing surface is removed and the new surface is installed.
- 4.31 The existing wearing course shall be broken up using controlled hand tools (e.g. pneumatic breaker) and removed from the root protection areas by hand. If it is deemed impractical or unsafe to achieve this using hand tools only, plant machinery operated under the supervision of the project arboriculturist may be used instead. The machine must be fitted with a grading bucket (without teeth) and be operated from outside the root protection areas unless on a retained area of hard standing. If roots are revealed during this operation, use of the machine must immediately cease and the operation shall be continued by hand.
- 4.32 The existing sub-base shall be reused (augmented as necessary) for the new surface (it is expected that the level of the new surface will be higher than the existing). If it is deemed necessary to remove any of the sub-base to enable the correct levels for the finished surface (these must first be signed off by the project arboriculturist), removal of the sub-base must occur carefully in shallow increments following the same methodology required for removing the wearing course.
- 4.33 Where the existing tarmac surface is removed from within the root protection area of T1 and replaced with soft landscaping, as much of the sub-base shall be retained below ground level as is feasible with a layer of topsoil imported. The removal of the existing surface within the root protection area of T1 shall occur under arboricultural supervision.

Constructing New Hard Standing within Root Protection Areas

- 4.34 Within the root protection areas of T21-T30, the new hard standing on previously unsurfaced ground shall be constructed to the basic specification described in the arboricultural impact assessment. The detailed specification (including levels) shall be provided by an engineer but must be signed off by the project arboriculturist before implementation to ensure compliance with arboricultural requirements.
- 4.35 Prior to construction of the surface, the existing ground vegetation (e.g. grass sward or up to 50mm of leaf litter) shall be removed using controlled hand tools such as a spade or turf cutter. The underlying soil must be fully retained and protected. Plant machinery may not be used to scrape vegetation unless under the supervision of the project arboriculturist and tree stumps should be removed from root protection areas carefully using a stump grinder. If obvious surface tree roots are present or if the soil is known to be shallow, then use of plant machinery will not be appropriate.

- 4.36 If access is required onto a cellular confinement system before the wearing course installed, a temporary surface (such as thick plywood or metal boards depending on the load needing support) shall be installed above a geotextile membrane to prevent soil and other building debris blocking the airspaces in the cellular confinement system, which could otherwise reduce the porosity of the completed surface.
- 4.37 When the cellular confinement system has been filled with clean angular stone, this should not be compacted to the point it compacts the underlying soil. Four passes with a smooth roller (max weight 1000kg without vibration) or several passes by a tracked excavator should be sufficient. Checks should be made before laying the wearing course to ensure the infill is fully consolidated.

Installing New Permanent Fencing and Raised Timber Walkway within Root Protection Areas

- 4.38 Installation of permanent fencing and the raised timber walkway within the root protection areas of retained trees will require access into the construction exclusion zones. Only pedestrian access will be permitted into the construction exclusion zones and scaffold board pathways shall be used in wet conditions. Ideally these works shall occur during the soft landscaping phase of development when it is safe to dismantle the tree protection fencing.
- 4.39 The fencing specifications are to be confirmed on the date of this report. Within root protection areas a fencing type that requires only postholes (no trenching) shall be used. The level of the fences must follow existing ground levels as there should be no re-grading of levels within root protection areas. The only excavation for the raised timber walkway will be for the support posts.
- 4.40 The postholes shall be hand excavated with care taken to avoid damaging or severing roots with a diameter greater than 25mm. Ideally the postholes shall be pre-dug to ensure significant roots can be avoided. The postholes shall be sleeved with impermeable sheeting before any concrete is added to prevent alkaline burn to retained roots. Cement mixing shall occur outside the construction exclusion zones.

Soft Landscaping within Root Protection Areas

- 4.41 Soft landscaping within the root protection areas of retained trees shall occur as the final phase of development, when all other construction activities in the vicinity have been completed and it is safe to dismantle the tree protection barriers. The detailed specification for soft landscaping is to be confirmed but the landscape masterplan indicates that turfing and tree/shrub planting within the root protection areas of T1, T2, H3 and T7.

- 4.42 All planting stock, topsoil and other soft landscaping materials shall be stockpiled outside the root protection areas of retained trees. When the tree protection barriers have been dismantled, the extents of the root protection areas shall be made clear to operatives at the site by other means (e.g. ground marker paint or similar). The standard restrictions to works within the construction exclusion zones will still apply during the soft landscaping phase of development.
- 4.43 Where new turf or grass seed is to be laid within the root protection areas of retained trees, topsoil will likely need to be imported. The existing soil may be lightly tilled by hand but use of rotavators or plant machinery will be prohibited. A maximum increase of 100mm of topsoil may be introduced to a root protection area to avoid suffocating existing root growth. Care must be taken to prevent soil being piled against tree buttresses or buttress roots.
- 4.44 When soil or other materials are transported across a root protection area in wet conditions, scaffold board pathways must be used to prevent compaction of the rooting medium. It should be noted that even pedestrian traffic can compact the soil in wet conditions.
- 4.45 All planting pits within root protection areas shall be individually hand excavated (no trench planting). Care must be taken to avoid severing or damaging roots with a diameter greater than 25mm.

Pre-commencement Arboricultural Consultancy Input

- 4.46 Prior to the commencement of works, arboricultural input will be required for the following aspects of development:
- The construction management plan.
 - The final, detailed routing of new drainage services.
 - The routing of utility services.
 - Final levels based on the detailed design.
 - The engineers specification for the above soil surfacing design within the root protection areas of T21-T30.
 - The hard landscape plan.
- 4.47 If these aspects of the project have a material impact on the guidance in this method statement, the arboricultural method statement shall be updated and the revised information submitted to the local authority tree officer for approval.

Pre-commencement Meeting

- 4.48 A pre-commencement meeting shall be held between the contractors and the project arboriculturist. The local authority arboricultural officer shall be given reasonable notice of the pre-commencement meeting so they may also attend. The purpose of the pre-commencement meeting shall be:

- To clarify the tree protection methodology with the site manager.
 - To explain the implications of the tree preservation order.
 - To discuss the chronology and phasing of the project with the site manager.
 - To sign off that the pre-commencement tree works have been completed as specified in the arboricultural impact assessment, and to discuss any requirements for any further pruning which had not been anticipated prior to the meeting.
 - To sign off that the tree protection fencing and ground protection have been installed in the correct locations and to the agreed specification. To agree revised locations subject to the phasing of the development.
 - To agree with the local authority arboricultural officer the type and timings of arboricultural monitoring necessary.
- 4.49 Following this meeting, if the local authority arboricultural officer has not been able to attend, an email outlining the actions discussed will be sent to the tree officer for approval. If necessary, a revised tree protection plan and method statement will be issued for approval.

Arboricultural Supervision

- 4.50 The project arboriculturist shall supervise:
- The removal of existing hard standing from within the root protection area of T1.
 - The removal of the existing building footing adjacent to T1 if tree roots are revealed.
 - Excavation for the attenuation tank if roots over 25mm diameter are revealed within the root protection areas of T21 and G22.

Arboricultural Monitoring

- 4.51 The site manager shall provide a monthly update to the project arboriculturist including photographic evidence that the tree protection barriers are intact and that the construction exclusion zones have been observed.
- 4.52 In addition to the above, a system and programme of onsite monitoring by the appointed arboricultural consultant shall be agreed with the Local Authority Arboricultural Officer. The form and frequency of site monitoring shall be agreed at the pre-commencement meeting.

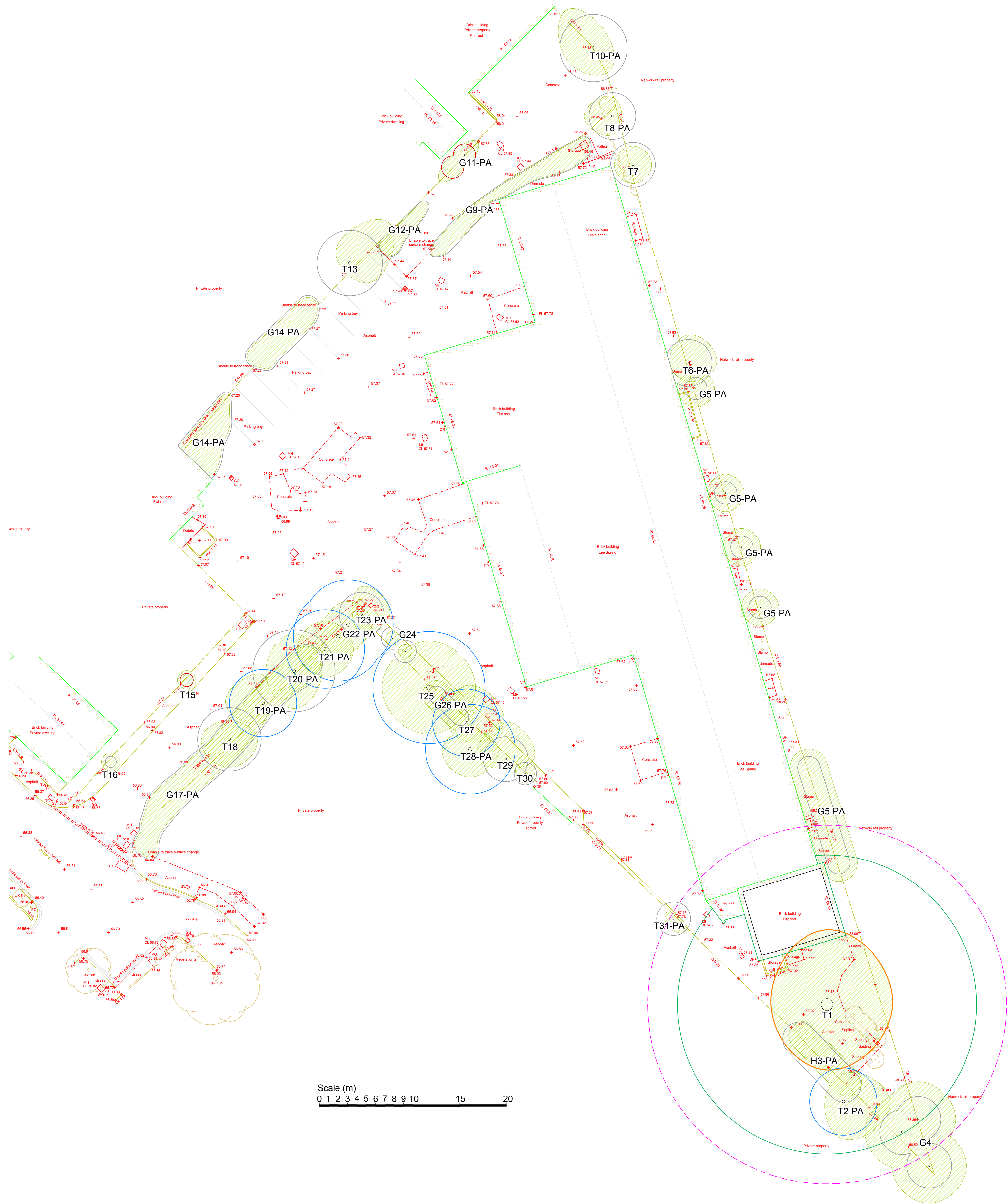
Process if an Unforeseen Issue Relating to Trees Arises

- 4.53 If significant root growth is disturbed during construction activities that are not within the scope of this report, the work shall cease until the project arboriculturist has been consulted. Roots greater than 25mm in diameter or dense/matted fibrous roots shall be considered significant root growth. It should be remembered that whilst root protection areas are part of industry best practice, tree root growth is influenced by a number of factors and may not conform to expected ideals.
- 4.54 If at any time during the construction process, damage is inadvertently caused to a tree, the project arboriculturist shall be notified to assess the likely implications and to prescribe potential remedial measures to be implemented. Damage can be in the form of chemical or fuel spillage, mechanical damage to either the above ground parts of the tree or the roots, fire or any other unforeseen circumstance.
- 4.55 The supervising arboriculturist shall be appointed by the contractor. It will be necessary for the arboriculturist to report to the local planning authority on the outcome of the site visits as well as any unforeseen tree related issues.

Figures and Appendices

Appendix A

Tree Constraints Plan



* Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

Tree survey schedule contained within the arboricultural report contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

- Key:**
- Root protection area for category A* tree
 - Root protection area for category B* tree
 - Root protection area for category C* tree
 - Root protection area for category U* tree
 - Canopy of tree with TPO
 - Canopy of tree without TPO
 - Veteran tree buffer

Drawing no: 6133/22/A Rev: - Sheet number: 1 of 1

Site:

Land at Latimer Road
Wokingham
Berkshire
RG41

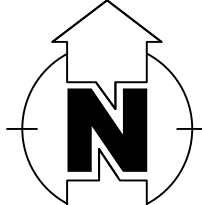
Drawing title: Tree Constraints Plan

Date drawn: 02/11/2022

Scale: 1:200 at A1

Drawn by: PD

Checked by: LW



Appendix B

Tree Survey Schedule

Site:		Land at Latimer Road, Wokingham												
Survey date:		01/11/2022												
Surveyor:		Peter Davies												
Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)	
T1	Pedunculate oak (Quercus robur)	20	1280	N: 8 E: 7 S: 7 W: 6	Crown: 1 east Branch: 2 east	Veteran	Good	Good	TPO - Open grown habit. Crown previously reduced. Primary crown break at 4m with smaller branches from epicormic shoots on stem below. No major visible defects. Requires 19.2m veteran tree buffer.	No action required.	A1+2	707.0	15.0 (amended on tree constraints plan)	
T2	Eucalyptus (Eucalyptus spp.)	16	300 est	N: 3 E: 5 S: 4 W: 2	Crown: 3 east Branch: 3 east	Early mature	Good	Fair	Third party tree viewed from site. Slight south-east lean to 5m.	No action required.	B2	40.9	3.6	
H3	Leyland cypress (Cupressus X leylandii)	3 average	Up to 150 average est	N: 2 E: 1 S: 1 W: 1	2 over site average	Semi mature	Good	Fair	Third party garden hedgerow. Topped but not regularly pruned over site.	Prune to formal hedgerow on north side.	C2	10.2 average	1.8 average	
G4	Cherry Laurel (Prunus laurocerasus)	6-8 average	Up to 200 average est	3-5 average	0 average	Mature	Good	Fair	Unmanaged shrubs in corner of site.	Fell and remove stumps.	C1+2	18.1 average	2.4 average	
G5	Mixed (ash, hazel, elder, oak, buddleia)	4-6 average	Up to 150 (under 100 average) est	1-3 average	0-2 average	Young-semi mature	Fair	Fair	Small offsite trees on railway land. Crowns overhang site and extend to existing building. Must are multi-stemmed.	Reduce to site boundary.	C2	4.5 average	1.2 average	
T6	Ash (Fraxinus excelsior)	9	200 est	N: 3 E: 3 S: 2 W: 2	Crown: 2 average Branch: 2 average	Early mature	Good	Fair	Third party tree on railway land. Crown overhangs existing building within site. No long term retention potential.	Crown lift to 3m over site.	C1+2	18.1	2.4 (amended on tree constraints plan)	

Site:		Land at Latimer Road, Wokingham														
Survey date:		01/11/2022														
Surveyor:		Peter Davies														
Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m²)	Root Protection Radius (m)			
T7	Holly (Ilex aquifolium)	9	200 est	N: 2 E: 2 S: 2 W: 2	Crown: 1 west Branch: 1 average	Mature	Fair	Fair	Third party tree on railway land. Smothered by ivy.	Sever ivy (suggestion only as third party tree). Crown lift to 3m over site.	C1+2	18.1	2.4			
T8	Hawthorn (Crataegus monogyna)	6	150, 150 est	N: 2 E: 1 S: 2 W: 3	Crown: 1 west Branch: 1 average	Early mature	Fair	Fair	Located on site boundary at corner of chain link fence.. No direct access to stems. One dead stem smothered by ivy and pruned to boundary fence.	Fell and remove stump.	C2	20.4	2.5			
G9	Mixed (buddleia, hazel)	1-3 average	Under 75 average	1-2 average	0 average	Young-semi mature	Fair	Poor	Scrub area smothered by bramble. Buddleia conflicts with chain link fence.	Fell and remove stumps.	U	2.5 average	0.9 average			
T10	Hazel (Corylus avellana)	7	100 average x9 stems est	N: 5 E: 2 S: 3 W: 3	Crown: 0 average Branch: 0 average	Mature	Fair	Fair	Large hazel clump. Base straddles site boundary with railway land. Crown lifted over site. Small holly growing in middle of stems. Previously coppiced.	No action required.	C2	40.7	3.6			
G11	Ash (Fraxinus excelsior)	5-6 average	Up to 100 average est	N: 1 E: 2 S: 1 W: 2	2 average	Young	Poor	Poor	Self seeded trees located between chain link fence and close boarded fence at site boundary (ownership unclear). Trees conflict with lean-to on edge of offsite house.	Remove both trees suggestion only as third party specimens. No action required for development.	U	4.5 average	1.2 average			
G12	Hazel (Corylus avellana)	1.5-3 average	Under 75 average	1-2 average	0 average	Young	Good	Fair	Small hazel clump.	No action required.	C1	2.5 average	0.9 average			

Site:		Land at Latimer Road, Wokingham														
Survey date:		01/11/2022														
Surveyor:		Peter Davies														
Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)			
T13	Silver birch (Betula pendula)	13	290	N: 2 E: 6 S: 3 W: 1	Crown: 1 south Branch: 2 west	Mature	Good	Fair	Located in private garden. Strong north lean to 3m.	No action required.	C2	38.1	3.5			
G14	Mixed (hazel, privet, buddleia)	3-5 average	Up to 100 average est	1-3 average	0 average	Semi mature	Good	Fair	Scrub on site boundary. Some third party and overhanging site.	Clear group to site boundary.	C1	4.5 average	1.2 average			
T15	Ash (Fraxinus excelsior)	5	60	N: 1 E: 1 S: 1 W: 1	Crown: 2 average Branch: 2 average	Young	Poor	Poor	No leaves to assess but lesion on stem indicates Ash Dieback infection.	Fell and remove stump.	U	1.6	0.7			
T16	Ash (Fraxinus excelsior)	4	50	N: 1 E: 1 S: 1 W: 1	Crown: 0 east Branch: 0 average	Young	Fair	Fair	Small self seeded ash. No Ash dieback symptoms on date of survey but no long term retention potential.	Fell and remove stump.	C1	1.1	0.6			
G17	Mixed (hazel, elder, firethorn, Norway maple, yew)	1-6 average	Up to 100 average est	1-2 average	0 average	Young-semi mature	Fair	Fair	Scrub and tree saplings by driveway. Some third party and overhanging site. Most clad with bramble.	Clear group to site boundary.	C2	4.5 average	1.2 average			
T18	Ash (Fraxinus excelsior)	12	150, 240	N: 2 E: 3 S: 3 W: 3	Crown: 2 north Branch: 2 average	Early mature	Good	Fair	Dual stemmed from base. Minor crossing limbs. Secondary stem pushing against boundary close boarded fence to neighbours garden.	Fell and remove stump.	C1+2	36.2	3.4			

Site:		Land at Latimer Road, Wokingham											
Survey date:		01/11/2022											
Surveyor:		Peter Davies											
													
Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
T19	Pedunculate oak (Quercus robur)	11	300 est	N: 3 E: 0 S: 2 W: 4	Crown: 2 west Branch: 3 south	Early mature	Good	Fair	Under-storey and ivy inhibit inspection of stem. Asymmetric crown bias of access road. No major visible defects.	Fell and remove stump.	B2	40.7	3.6
T20	Ash (Fraxinus excelsior)	12	200, 260, 170	N: 4 E: 3 S: 4 W: 3	Crown: 3 west Branch: 2 south	Early mature	Good	Fair	Multi-stemmed. One tight stem union. Previously crown lifted on north-west side.	Fell and remove stump.	C2	61.8	4.4
T21	Norway spruce (Picea abies)	15	350 est	N: 3 E: 3 S: 3 W: 3	Crown: 1 west Branch: 2 average	Mature	Good	Good	Third party tree viewed from site.	Crown lift to 4m over site.	B1+2	55.4	4.2
G22	Leyland cypress (Cupressus X leylandii)	13-14 average	400 average est	2-3 average	2 over site average	Mature	Good	Fair	Third party trees viewed from site.	Crown lift to 4m over site.	B2	72.4 average	4.8 average
T23	Hazel (Corylus avellana)	6	200 est	N: 3 E: 3 S: 2 W: 1	Crown: 2 average Branch: 0 average	Early mature	Good	Good	Typical example of species. Crown lifted over parking area.	Fell and remove stump.	C1	18.1	2.4
G24	Hazel (Corylus avellana)	3 average	Up to 100 average est	0.5-1 average	0 average	Young	Good	Fair	Two small hazels.	Fell and remove stumps.	C1	4.5 average	1.2 average

Site:		Land at Latimer Road, Wokingham														
Survey date:		01/11/2022														
Surveyor:		Peter Davies														
Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)			
T25	Copper beech (Fagus sylvatica 'Purpurea')	14	400, 300 est	N: 5 E: 5 S: 5 W: 5	Crown: 2 average Branch: 2 average	Mature	Good	Fair	Third party tree viewed from site. Dual stemmed. Crown lifted over tarmac.	Crown lift to 4m over site.	B1+2	113.1	6.0			
G26	Beech. (Fagus sylvatica)	5-7 average	Under 75 average	1-2 average	2 average	Young	Good	Fair	Third party trees. Slender drawn up habits. Appear to be lapsed hedgerow.	No action required.	C1	2.5 average	0.9 average			
T27	Copper beech (Fagus sylvatica 'Purpurea')	14	200, 220 est	N: 4 E: 4 S: 2 W: 2	Crown: 2 east Branch: 2 east	Early mature	Good	Fair	Third party tree viewed from site. Co-dominant stems from base. Stems abut boundary garden fence. Asymmetric crown bias over site.	Crown lift to 4m over site.	B2	40.0	3.6			
T28	Lawson cypress (Chamaecyparis lawsoniana)	14	400 est	N: 2 E: 3 S: 3 W: 3	Crown: 3 south Branch: 5 average	Mature	Good	Good	Third party tree viewed from site. High crown clearance over site.	No action required.	B2	72.4	4.8			
T29	Saucer magnolia (Magnolia X soulangeana)	7	200 est	N: 4 E: 3 S: 1 W: 3	Crown: 2 east Branch: 1 average	Mature	Good	Good	Third party tree viewed from site. Crown lifted over site.	Crown lift to 4m over site.	C1+2	18.1	2.4			
T30	Copper beech (Fagus sylvatica 'Purpurea')	6	100 est	N: 2 E: 1 S: 1 W: 2	Crown: 2 east Branch: 1 average	young	Good	Good	Small third party tree viewed from site.	Crown lift to 4m over site.	C1	4.5	1.2			

Site: Land at Latimer Road, Wokingham

Tree Survey Schedule

Survey date: 01/11/2022

Surveyor: Peter Davies



Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
T31	Variegated holly (Ilex x altaclerensis 'Golden King')	4	150 est	N: 1 E: 0 S: 2 W: 1	Crown: 2 average Branch: 2 average	Early mature	Good	Good	Third party tree viewed from site. Previously crown lifted.	No action required.	C1	10.2	1.8

Appendix C

Tree Retention Plan



* Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

Tree survey schedule contained within the arboricultural report contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

Key:

- Root protection area for category A* tree to be retained
- Root protection area for category B* tree to be retained
- Root protection area for category C* tree to be retained
- Root protection area for category U* tree to be retained
- Canopy of tree with TPO to be retained
- Canopy of tree without TPO to be retained
- Veteran tree buffer
- Canopy of category B* tree to be removed
- Canopy of category C* tree to be removed
- Canopy of category U* tree to be removed
- Canopy of tree to be pruned

Drawing no: 6133/22/B Rev: 01 Sheet number: 1 of 1

Site:

Land at Latimer Road
Wokingham
Berkshire
RG41

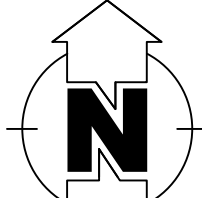
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Date drawn: 21/03/2023

Scale: 1:200 at A1

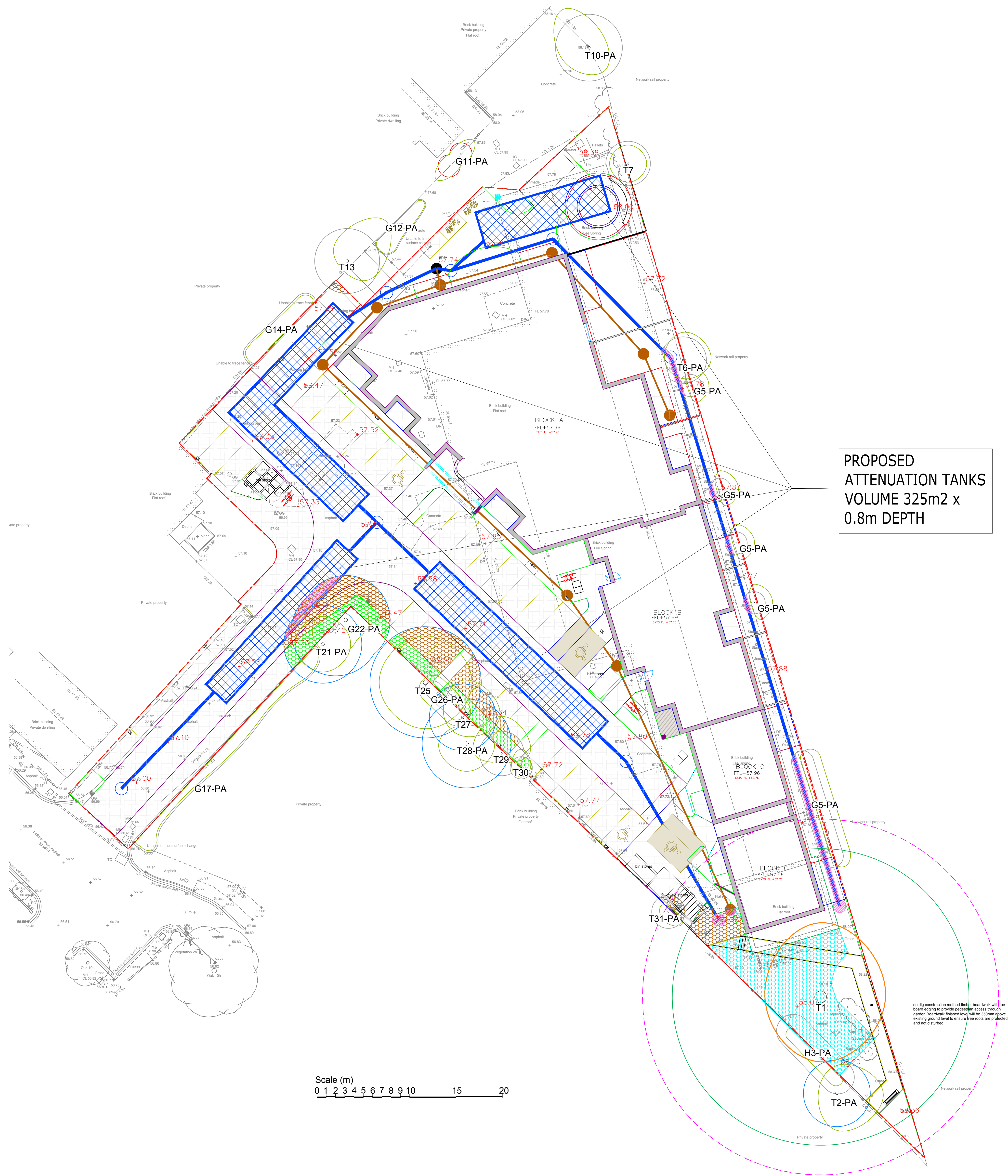
Drawn by: PD

Checked by: LW



Appendix D

Root Protection Area Incursions Plan



PROPOSED
ATTENUATION TANKS
VOLUME 325m2 x
0.8m DEPTH

Scale (m)
0 1 2 3 4 5 6 7 8 9 10 15 20

no dig construction method timber boardwalk with toe board edging to provide pedestrian access through garden Boardwalk finished level will be 350mm above existing ground level to ensure tree roots are protected and not disturbed.

* Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

Tree survey schedule contained within the arboricultural report contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

Key:

- Root protection area for category A* tree to be retained
- Root protection area for category B* tree to be retained
- Root protection area for category C* tree to be retained
- Root protection area for category U* tree to be retained
- Canopy of tree with TPO to be retained
- Canopy of tree without TPO to be retained
- Veteran tree buffer
- Existing hard standing removed from root protection area
- Existing hard standing replaced within root protection area
- New hard standing within root protection area
- Excavation for services within root protection area

Drawing no: 6133/22/C Rev: 01 Sheet number: 1 of 1

Site:

Land at Latimer Road
Wokingham
Berkshire
RG41

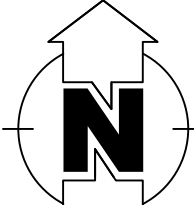
Drawing title: Root Protection Area Incursions Plan

Date drawn: 21/03/2023

Scale: 1:200 at A1

Drawn by: PD

Checked by: LW

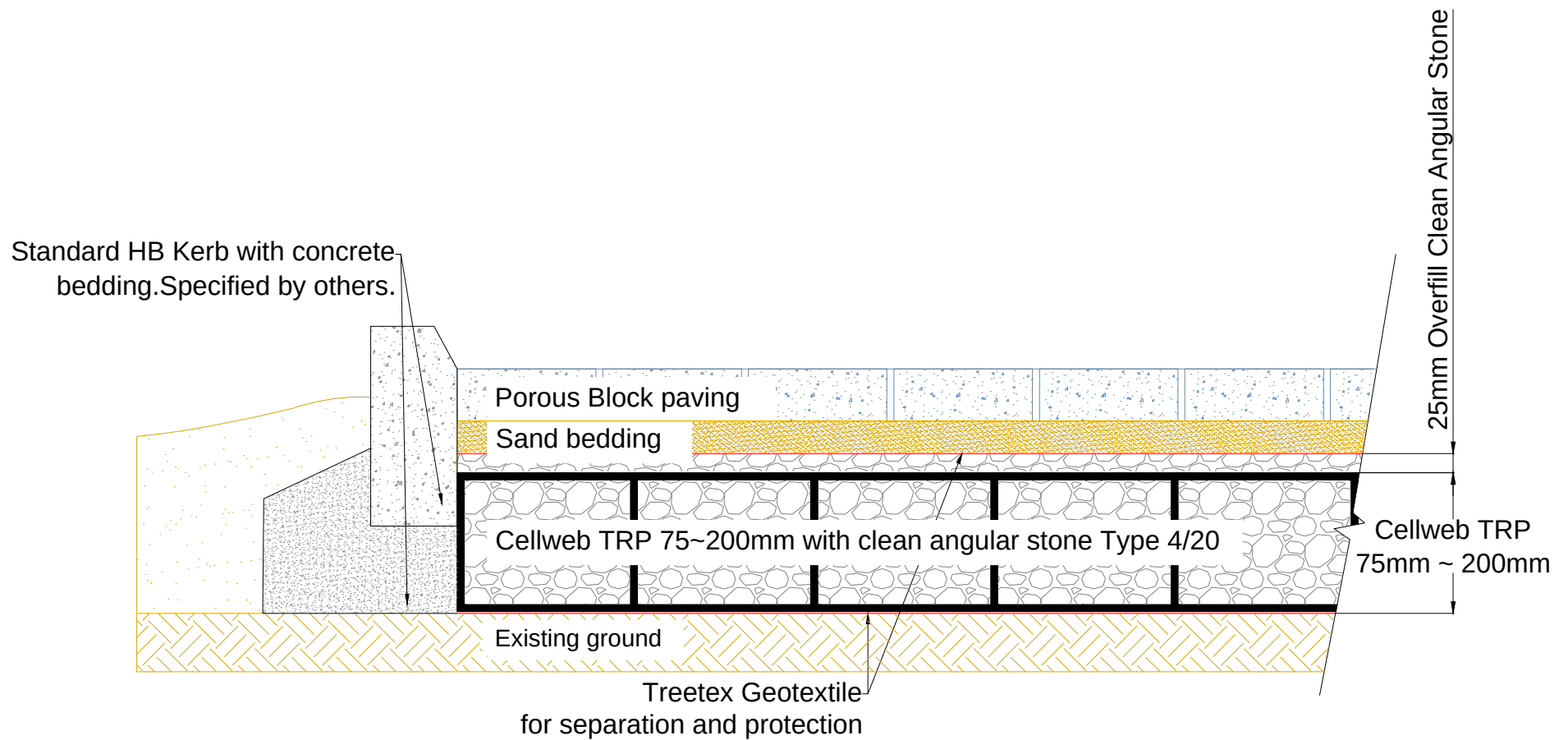


Appendix E

Tree Protection Plan

Appendix F

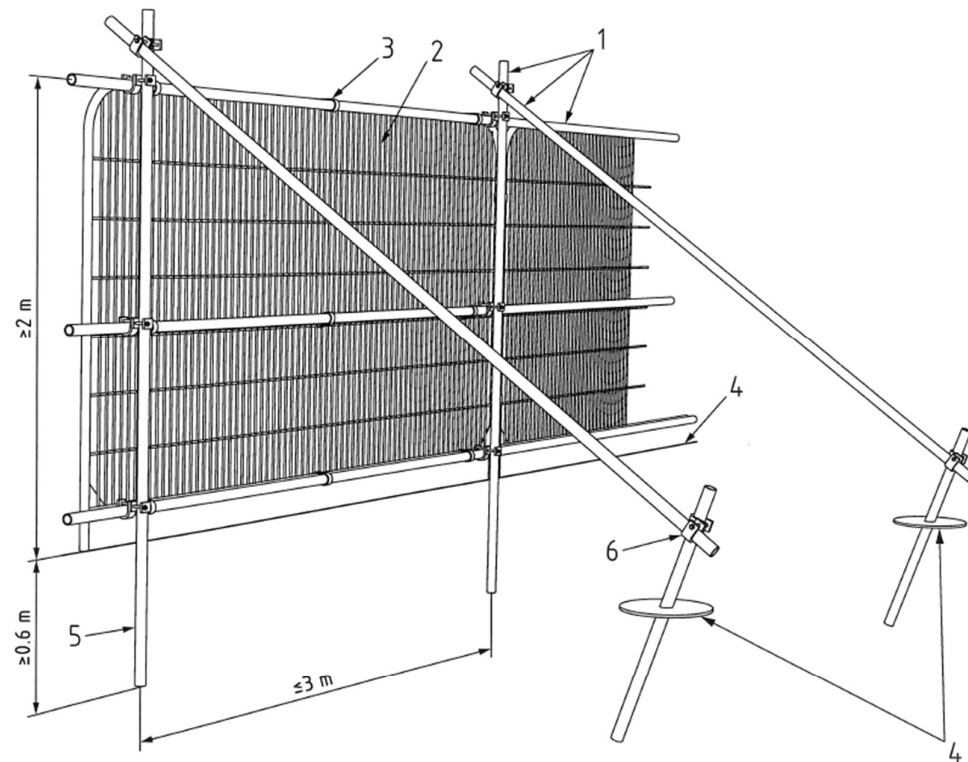
Example No-dig Surface Specification



Note: Subbase could be required depending on the existing ground CBR % and the type of traffic on the surface.

Appendix G

Tree Protection Fencing Specification 1

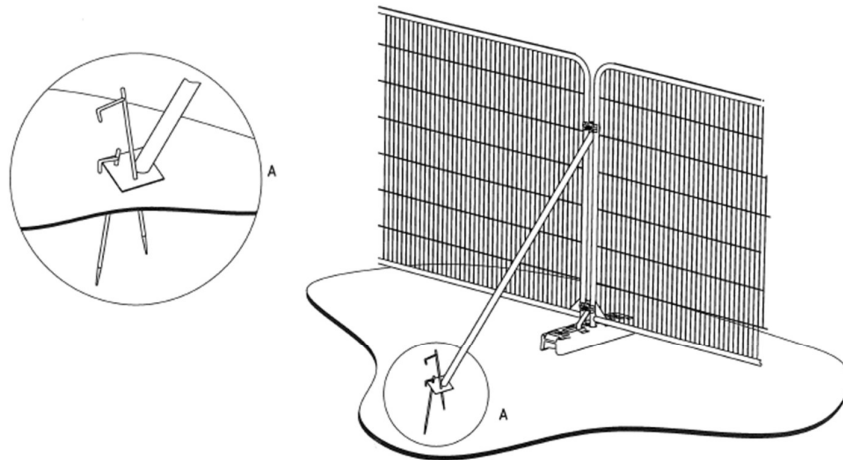


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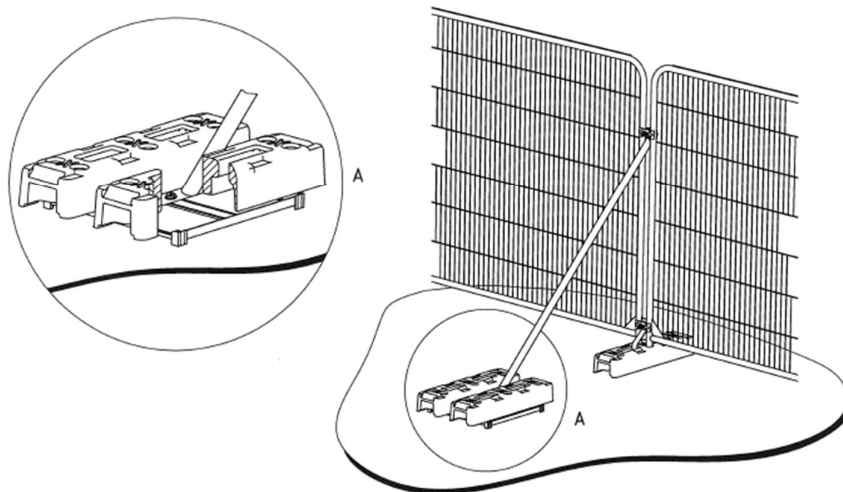
- 1 Standard scaffold poles
- 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
- 3 Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
- 6 Standard scaffold clamps

Appendix H

Tree Protection Fencing Specification 2



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Appendix I

Example Protective Fencing Sign





Phlorum Limited

Head Office & Registered Office:

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Northern Office:

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Wilmslow Road
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