ARBORICULTURAL SURVEY & IMPACT ASSESSMENT

LAND NORTH OF REBECCA ROAD, PERSHORE WR10 2FB
for
TOUCH DEVELOPMENTS LTD

NB. Information on legally protected, rare or vulnerable species may appear in ecological reports. In such cases it is recommended that appropriate caution be used when circulating copies.

August 2024
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REPORT CONTROL SHEET

General Report Information	
Client	Touch Developments Ltd
Report Title	Arboricultural Impact Assessment and Method Statement
Location	Land North of Rebecca Road, Pershore WR10 2FB
Date of site risk assessment	30 May 2024
Arboricultural Surveyor name	Chris Garner
Date report issued	27 August 2024
Report approved by	Natalie Loben

Report Version Control

Version	Date	Author	Description
1.0	23 August 2024	Chris Garner	Document created
1.0	23 August 2024	Chris Garner	Document completed

RESULTS SUMMARY AND RECOMMEDATIONS

Constraints Appraisal

Below ground constraints. Section 4.6 of BS5837 recommends that the trunk diameter measurement for each tree is used to calculate the root protection area (RPA), which can then be interpreted to identify the design constraints and, once a layout has been developed, the Construction Exclusion Zone (CEZ) to be protected by barriers (tree protection plan (TPP)). The Table below lists the surveyed trees and their RPA dimensions. The Tree Constraints Plan (TCP) and Tree Protection Plan (TPP) graphically show the surveyed trees and their relevant RPAs. RPAs may have been altered where it is deemed necessary due to predicted eccentric root morphology. Root morphology will be influenced by the ground conditions; roots will proliferate where soil conditions are favourable and less so where the ground conditions are poor. Buildings and metalled road with deep foundations may inhibit root growth into the area.

Above ground constraints. The second constraint is the amount of space required around a tree(s) in order for it to be successfully retained once development is finished and the pressures of human occupation come to bear. It has been estimated by taking account of the recommendations with Section 5 of BS 5837 (including an assessment of future growth potential). This area would not normally be suitable for occupied accommodation but un-occupied structures or hard surfacing may be feasible. This is represented by a separate polygon on the TCP and TPP.

Indirect damage. Damage by indirect action can occur in shrinkable soils such as clay when vegetation takes moisture from the ground, causing a significant volume change resulting in ground movement. Buildings and drainage need to be protected against the effects of subsidence and heave. Specialist soil assessment must be commissioned in order to influence layout development and the engineering design of built structures.

Subsidence. Occurs when water is withdrawn from the soil causing it to shrink.

Heave. Occurs when previously dehydrated soils take up water and swell. This can happen when vegetation is removed or roots severed.

Note. Advice from an arboriculturist on the zone of influence of existing vegetation along with guidance and specifications from a qualified engineer must be sought when considering the above constraints.

Recommendations

Concept and design. A qualified and competent arboriculturist should be retained as a member of the design team in order to advise on the potential effects on or by existing arboricultural features. The scheme architect should utilise the information contained above and shown in the TCP and TPP to inform the development layout. However, incursion into these areas may be feasible provided arboricultural input is sought at the design stage and that adequate mitigation measures are provided for.

Trees and Wildlife. Consideration must be given to the timing of tree works in order to avoid any disturbance and impact on protected species including bats, birds and dormice. Where the presence of legally protected species is suspected, Natural England or the Betts Ecology team must be contacted in advance for advice. Dead trees or those in poor arboricultural condition are often the most important for biodiversity. Do not remove ivy, mistletoe, dead branches/standing dead wood, hollows, snags, seeps or rot unless there is a clear and material safety risk or presence of a notifiable pathogen. Note that most fungi are important ecologically. Removed branches/brash are to be neatly stacked as habitat piles in out of the way corners. Some larger dead trunks or limbs can usefully be erected upright as standing deadwood habitat, with bases in sufficiently deep holes to keep them safe and secure.

Table 1: Tree Survey Results Table

See below for key to this Table

Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m2)
T1	Ash	7	160	1.5	2	2	1.5	N/A	2	EM	Minor deadwood, damage at base, Ash Dieback present	<10	U	1.8	10
T2	Ash	13	470	6	7	4	5	2E	2.5	M	Roadside tree, vegetation at base restricts inspection, Ash Dieback present	<10	U	5.7	102
T3	Pear	6	150#	2.5	2	2#	2#	N/A	2.5	EM	Ivy covering tree, dead Elm protruding through canopy, inspection restricted by vegetation, no visible defects	40+	C2	1.8	10
H4	Mixed hedge	3.5	150#	0.5	0.5	0.5	0.5	N/A	0	M	Understory hedge, dead Elms in hedge, group consists of Ivy, Elm, Brambles, Hawthorn. Fell dead Elms	20+	C2	1.8	10
T5	Oak	10	350#	5	4.5	4#	5#	N/A	2	M	Roadside tree, minor deadwood present - low risk, no significant defects	40+	B2	4.2	55
G6	Ash	14	450#	6	5.5	4#	3#	N/A	3	M	Small group of roadside trees, minor deadwood present, compression forks at base of some trees, group recorded only partially topographical survey, possible Ash Dieback (early onset)	10+	C1	5.4	92
G7	Ash and Elm group	15	400#	6	5.5	6#	6#	N/A	4	M	Large group of ash trees, suspected Ash Dieback, group only part recorded on topographical survey, minor deadwood present, inspection restricted by Brambles. Dead Elms present. Fell dead Elms	<10	U	4.8	72

Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m2)
T8	Oak	17	600	9	8	9.5#	8.5#	4SE	4.5	M	Large Oak tree adjacent to road, previous pruning wounds, minor deadwood, good vigour, dead Elm under canopy, inspection restricted by barbed wire fence, pruning wounds occluding. Fell dead Elm.	40+	B2	7.2	163
T9	Ash	4.5	450	0.5	0.5	0.5	5	N/A	4	M	Previously failed tree - top fallen, single branch remains (4m) growing across adjacent tree in westerly direction. Reduce remaining branch to reduce wind loading, or fell. Not on topo, position estimated	<10	U	5.4	92
T10	Ash	11	250	5	3	3.5#	2.5#	N/A	5	M	Inspection restricted by ivy, no visible defects	40+	B1	3	28
G11	Mixed group predominantly Ash	13	300#	7	7.5#	5#	6#	N/A	6	M	Ash, Field Maple, minor deadwood in Ash trees, dead Elms under trees, west trees slightly unbalanced - rebalance canopies, signs of Ash Dieback, minor stem decay on Field Maple, Hawthorn with no significant defects	10+	C2	3.6	41
T12	Hawthorn	4	200#	1#	1.5#	1#	1#	N/A	0.5	M	Hawthorn tree in small hedge, vegetation restricting inspection, no visible defects	40+	C1	2.4	18
T13	Hawthorn	3	200#	1.5#	1#	1.5#	1#	N/A	0.5	M	Hawthorn tree in small hedge, vegetation restricting inspection, no visible defects	40+	C1	2.4	18
G14	Hawthorn, Oak, Larch	12	450	5	4	5	4.5	N/A	2	M	2 mature Oak trees with surrounding Hawthorn understorey, vegetation restricting inspection, minor deadwood, no visible defects	40+	B2	5.4	92

Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m2)
T15	Oak	15	1100	8	7.5	8	7.5	2N	2.5	M	Large Oak tree, animal set at base/under tree, crown retrenchment evident, large amounts of deadwood, previous pruning wounds, small cavity at base on east side, previous failures, canopy reforming lower down (typical stag headed tree - protoveteran). Recommend Picus Tomograph to check extent of decay	40+	B3	13.2	547
G16	Mixed group	5	200	3#	3#	3.5#	2.5#	N/A	0.5	M	Blackthorn is main species, Larch, Elderberry, and Pines present, small tree group, vegetation restricting inspection, no visible defects	40+	B2	2.4	18
T17	Oak	9	450	4.5	5	5	5.5	N/A	0.5	M	Tree being supressed by T18, minor digging at base, minor deadwood, no significant defects	40+	B2	5.4	92
T18	Oak	20	1300	10	11	9	7	N/A	1	M	Large tree, animal burrow at base/under tree, barbed wire cutting into tree, large area with no bark/decay, large wounds, crown retrenchment, deadwood, previous branch failures, cavities and old pruning wounds. Recommend Picus Tomograph to check extent of decay	40+	A3	15	707
T19	Oak	15	950	8	7	9.5	6	N/A	2	M	Previous small branch failures, good vigour, deadwood in canopy, bark missing on branches	40+	B2	11.4	408

Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m2)
T20	Oak	14	1000	12	8	6	7	N/A	6	M	Large previous failures causing imbalance in the tree, signs of decay at base, also signs of animal burrowing, large crack appearing on west side of the tree, cavities evident, onset of crown retrenchment, significant exposed sapwood. Recommend Picus Tomograph and reduce by up to 4m on over extended limb and 3m on top to prevent failure. Re-shape as required	20+	B2	12	452
T21	Oak	15	950	8	7	9	7	N/A	2.5	M	Crown retrenchment onset, stem decay/ dead main leader, large cavity at base, growing in contact with fence, low-risk ask present. Recommend remove hedge around base to allow for Picus, and then check extent of decay with Picus Tomograph	40+	B3	11.4	408
T22	Oak	10	350	4	3.5	5	3	N/A	1.5	M	Minor deadwood, minor broken branches. Not on topo survey, position estimated	40+	B2	4.2	55
G23	Lime	5	200	4	2	3	2	N/A	0.5	M	Small group of Lime trees, vegetation restricting inspection, no visible defects. Not on topo, position estimated	40+	B2	2.4	18
T24	Lime	7	310, 300, 130	5	4.5	5	4	N/A	0.5	M	Vegetation restricting inspection in part, compression fork, 3 stems at 1.5m. Not on topo survey, position estimated	40+	B1	5.4	92
G25	Mixed group	7	200	3	2.5	3	2	N/A	0	M	Blackthorn, Ash, Elms, Field Maple, Hawthorn, Pyracantha, and Ivy. Hedge and vegetation restricting inspection, fence restricting inspection. Dead Elms within group. Fell dead Elms. Not on topo survey, position estimated	20+	C2	2.4	18

Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m2)
G26	Mixed group	11	300	6#	5#	5	5.5	N/A	3	M	Ash, Elm, Bramble, Elms are dead, Ash possibly has Ash Dieback, vegetation restricting inspection. Fell dead Elms.	20+	C1	3.6	41
G27	Mixed group	5	200	2	2.5	2	2	N/A	0.5	M	Elm, Bramble, Blackthorn, Hawthorn, Elms are dead. Fell Elms	40+	C2	2.4	18
T28	Ash	15	1040	6	6	5	6	2.5S	4	M	Large cavity on lowest branch, cavities at old pruning wounds, severed Ivy on stem, possible signs of Ash Dieback, large cavity at base of tree, pollarded previously to mitigate but regrown, probably offsite, repollard if owned by client or refer to owner	<10	U	12.6	499

Key to Tree Survey Results Table

		Age Class		Definition	Retention Category			
Stem Dia.	= Stem diameter (mm) at 1.5m above ground level	**Y**	Young	1st 1/3rd of life expectancy	Category (BS 5837)		Sub Category (BS 5837)	
C.C.	= Height of crown clearance above ground level	**SM**	Early Mature	2nd 1/3rd of life expectancy	**A**	High Quality & Value	**1**	Mainly arboricultural value
U.L.E.	= Useful Life Expectancy of the tree in years	**M**	Mature	Final 1/3rd of life expectancy	**B**	Moderate quality & value	**2**	Mainly landscape value
Stems	No of stems emanating below 1.5m above ground level	**OM**	Over mature	Beyond life expectancy & in natural decline	**C**	Low quality & value	**3**	Mainly cultural value
(Ref)	Number and type of feature (T – tree, H – hedge, G – group, W - woodland)	**V**	Veteran	Great age & poss. high conservation value	**U**	No quality & value - Remove		
NB:	Estimated ultimate height and crown spread achievable at maturity if conditions are ideal are given (in brackets) next to actual measured dimensions							

SUPPORTING INFORMATION

Scope and objectives

This report was commissioned by Touch developments Ltd in respect of Construction of 121 new properties, with associated roadwork and parking spaces. The objectives of this Arboricultural survey were:

1. A survey and schedule of all relevant trees on or adjacent to the site including an assessment of condition;
2. Appraisal of the above and below ground constraints imposed by existing trees on the potential development of the site;
3. Preliminary tree work recommendations on the basis of good arboricultural management.

Limitations

The purpose of this report is to provide an analysis of development constraints above and below ground which are imposed on the site by existing trees (including an assessment of likely future growth potential). Its primary purpose is as an aid for the scheme architects in developing a proposal which considers all existing constraints. This report considers all significant trees on the site or other area as designated within our instructions. Adjacent properties may also contain trees that pose a constraint on development and where necessary their details will be included.

Statutory tree protection. The potential effect of development on trees, whether statutorily protected (*e.g.* by Tree Preservation Order or by their inclusion within a conservation area) or not, is a material consideration that is taken into account in dealing with planning applications. We have not checked whether trees on site are statutorily protected and you must carry out a statutory tree protection check if you intend to undertake any works prior to formal planning consent being issued.

Ecological Constraints. A large body of legislation provides statutory protection to birds, bats and other species that inhabit or use trees. These can and often do impose significant constraints on the use of the land, tree operations and timing of site access in addition to any of the tree matters detailed in this report. These issues are beyond the scope of this report and have therefore not been considered in any detail. However, please be aware that Preliminary Ecological Appraisal, Bat Survey and Badger Survey reports (Betts Ecology, 2024) are relevant.

Where trees are clad with ivy (*Hedera helix*) the inspection of such trees may be impeded. **For ecological reasons ivy (and other parasitic or epiphytic plants) should not be removed** but small sections sometimes have to be carefully cleared to allow adequate arboricultural inspection.

Validity. The statements made in this report do not take account of the effects of extremes of climate, vandalism or accident, whether physical, chemical or fire. The author and Betts generally cannot therefore accept any liability in connection with these factors, nor where prescribed work is not carried out in a correct and professional manner in accordance with current good practice. The authority of this report ceases at any stated time limit within it, or if none stated after two years from the date of the survey or when any site conditions change, or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s), whichever is the sooner.

Betts are a scientific practice. This report has been prepared for the sole use of the client. Any information relating to legal matters in this report is provided in good faith but does not purport in any way to give any advice on or interpretation of the law whatsoever. Professional legal advice should always be sought.

General site description and methods

The site, located at Ordnance Survey Grid Reference SO 93635 46328 was visited by Chris Garner on 30 May 2024 and comprises a large vacant field formerly used for agricultural purposes. The site is located approximately 1 mile north-west of the town of Pershore on the edge of the urban area. To the north and west, the site opens out into open countryside. A plan is provided in the main text above. Photographs are given below.

Tree survey. Each tree was surveyed and given a number corresponding to the Tree Constraints Plan (TCP) and Tree Protection Plan (TPP). For each group or individual information was collected as recommended at 4.4.2.5 of BS 5837. The survey was preliminary in nature and did not involve aerial or detailed inspection. These data are held within the tree schedule (Table 1 above).

Interpretation of data. BS5837 recommends that trees within categories A—C (where A is highest quality) are a material consideration in the development process. However, young trees with a stem diameter less than 150mm could be considered for relocation. Category U trees are those that will not be expected to exist for long enough to justify their consideration in the planning process. However, please again note (and see below) that trees disregarded or marked as of low arboricultural quality in this report may be of ecological value and must not be pruned, felled or otherwise injured or treated without prior ecological advice. The tree categories are illustrated on the plans with colour coding. Category A trees are Green, category B are Blue, category C are Grey and category U are Red.

Veteran and ancient trees. Where category U trees are notable for their biodiversity, heritage or landscape value, even if only for the relatively short term, they should always be upgraded provided there are no overriding safety issues that cannot be appropriately managed.

Arboricultural Impact Assessment

The impact of the development on the trees

Tree removals

The implementation of the development would require the removal of the following trees:

Tree No.	Species	Retention Category	Reason for Removal
H4	Mixed Hedge	C2	Partial removal required to allow for the creation of the incoming access road
T9	Ash	U	Removal required to allow for the creation of the incoming access road
T10	Ash	B1	Removal required to allow for the creation of the incoming access road

H4 is a low quality informal hedge and will be retained in the main part. Only a small section will be removed to make way for the new road, and this will not have a significant impact on the site.

T9 is a low quality tree which has already partly failed and is left in a precarious state. The tree adds nothing in terms of visual amenity and its removal will not have a significant impact on the site.

T10 is more of a significant tree and its removal will therefore have a slight impact on the site. This will be mitigated by the fact that the majority of the trees are to be retained along the site frontage. It should also be noted that the tree is an Ash and is unlikely to survive the current Ash Dieback epidemic in the long term and so designing the site around the tree would be inappropriate.

The development will provide an opportunity to enhance the site through a new landscape scheme which can more than offset the minimal impact of tree removals.

Foundations

Foundations for the proposed buildings will sit well clear of the RPAs of all of the trees that are on and adjacent to the site. As such there will be no impact.

Drives, parking areas and pathways

Hard surfaces for the proposed buildings will sit well clear of the RPAs of all the trees that are on and adjacent to the site. As such there will be no impact.

Services

I have not been provided with any information on the installation of services for the buildings at this time but there is more than sufficient space to install service trenches around the site without impacting on any of the retained trees. To be clear, under no circumstances should service trenches, soak-aways or other drainage features be position within the RPAs of any of the retained trees.

The proposed swale and balancing pond to the south and west of the site should be poisoned so as to be clear of the RPAs of all retained trees.

Tree pruning

No pruning works are required to implement the development.

Damage to root systems

The trees will be protected by the installation of tree protection barriers in positions as detailed on the Tree Protection Plan.

Damage to above ground parts of the tree

The trees will be protected by the installation of tree protection barriers in positions as detailed on the Tree Protection Plan.

Pressure for future tree removal

All trees are sufficiently distant from the proposed house positions to ensure that pressure for tree removal remains very low.

Storage and mixing of heavy and toxic materials

There is sufficient space for the storage and mixing of materials as identified on the draft Tree Protection Plan. There is also sufficient space within this area for the positioning of welfare facilities and the site construction office.

Space for future tree development

All trees are sufficiently distant from the proposed development to allow for future growth uninterrupted.

Demolition

No demolition works are required.

The Impact of the Trees on the Development

Potential for direct damage

All buildings should be sufficiently distant from retained trees to make direct damage unlikely as long as they are engineered appropriately.

Any new tree planting will need to be positioned to avoid direct damage to any of the new structures.

Potential for indirect damage

I have not been provided with any detail on soil type or modified plasticity index.

Shading

Shade from retained trees will not be cast onto any of the proposed properties or their associated garden areas. As such, there will be no impact.

Seasonal nuisance

There will be some leaf fall onto site during the autumn which will need to be considered as part of the properties garden maintenance. Gutters and downpipes should be fitted with leaf guards to mitigate the impact.

Privacy and screening

All vegetative screening around the boundary will be retained and there may be some scope for additional tree planting if the council desires it. It is respectfully suggested that if additional tree planting is required then this should be secured through an appropriately worded planning condition.

Arboricultural Method Statement

Documentation

Copies of the Arboricultural Method Statement and Tree Protection Plan (TPP) shall be available on site at all times and all staff will be made fully aware of their requirements.

Tree Protection Plan

All detail on the Tree Protection Plan shall be strictly adhered to at all times and there shall be no deviation without the written consent of the Local Planning Authority (LPA).

Site construction access

Access to the site shall be via the road to the south. No other access shall be used.

Removal of existing vegetation

All existing onsite ground vegetation within RPAs of retained trees shall be removed using hand tools only and not by mechanical excavator. Tree removals shall involve the use of chainsaws, chipper, and stump grinder but associated vehicles shall not be parked within the RPAs of retained trees unless supported by adequate ground protection. All tree stumps within the RPAs of retained trees shall be ground out and not removed by mechanical excavator so as to avoid damage to the retained trees' root system.

Phasing of on-site operations

The phasing of operations will follow a logical sequence to ensure the adequate protection of trees and compliance with planning conditions:

i. Site clearance of a light nature, hand tools only with no machinery or vehicles.
ii. Pre-construction tree works, including access facilitation pruning.
iii. Installation of tree protection barriers.
iv. Move on site, plant, site cabins, etc.
v. Main construction phase including ground preparations and installation of services.
vi. Monitoring by Local Authority.
vii. Removal of all non-essential equipment.
viii. Landscaping (hard and soft) outside of RPA's.
ix. Checks by Local Authority and consent to remove tree protection.
x. Removal of tree protection.
xi. Final landscaping within RPA's and post-construction tree works. (if required)

xii. Final checks by Local Authority.
xiii. Completion.

Contractor's car parking

Parking for site construction workers will be within the yellow hatched area as marked on the Tree Protection Plan. Vehicles shall not be parked in any other location.

Welfare facilities (requirement and siting), e.g. site cabins and latrines

Temporary site buildings such as mess huts and latrines will be sited within the yellow hatched areas as marked on the tree protection plan. They are not to be sited at any other location and not within the root protection areas of any of the retained trees.

Storage areas

Areas designated for the storage shall be within the yellow hatched area as indicated on the Tree Protection Plan and not in the vicinity of the RPAs of any of the retained trees. Toxic materials such as fuel and concrete will also only be mixed or discharged within the designated storage areas. There shall be no burning of waste materials on site.

Installation of services

The final position of services is yet to be decided but there is more than sufficient space on site to mean that their installation will not require trenching within the RPAs of any of the retained trees. Under no circumstances will services be installed within the RPAs of retained trees without the prior written agreement of the LPA. In the event that services need to be installed within the RPAs then all works shall be carried out strictly in accordance with NJUG Volume 4 and only with the prior written agreement of the LPA. Further detail on service installation shall be provide by the client.

Specification of tree works

All works are to be carried out in accordance with BS3998:2010, Tree Work – Recommendations.

Tree No.	Species	Work Specification	Reason for Works
H4	Mixed Hedge	Part removal	To allow for incoming access drive
T9	Ash	Fell and grind stump	To allow for incoming access drive
T10	Ash	Fell and grind stump	To allow for incoming access drive

Please note. Other works recommended within the survey schedule are not incidental to the development but should be progressed as a separate matter subject to the LPAs approval.

Tree Protection (inc. tree protection barriers)

Tree protection barriers will be installed in the positions as indicated by the red line on the tree protection plan and must remain in situ for the duration of the development. Once the barriers are in position the Construction Exclusion Zone (CEZ) must be considered sacrosanct and not removed or altered without the written consent of the local authority. A diagram for the default method of construction for the barriers can be viewed in appendix 1.

The barriers will be fitted with all-weather notices with the words in bold letters – Construction Exclusion Zone – Keep Out.

Removal of materials, facilities, and protective measures for the final phase

All none-essential materials and equipment will be removed while the tree protection measures are still in place. Any equipment and materials which remain will be directly linked to the final landscape phase. Tree protection will then only be removed once the site has been viewed by the local authority and their removal has been agreed in writing.

Post construction tree works and landscaping

It is not envisaged that post construction tree works will be required as appropriate tree protection measures have been put in place for the development. Should the need arise for post construction tree works, they will only be carried out after consultation and the written agreement of the local authority.

New landscaped areas will be installed in accordance with the approved landscape scheme to be provided by the project landscape architect.

Bibliography of relevant British Standards

British Standards Institute (2021). BS 8683 *A process for designing and implementing biodiversity net gain.* British Standards Institute, London, UK.

British Standards Institute (2015). *BS 8583 : 2015 Biodiversity — Guidance for businesses on managing the risks and opportunities*. BSI Standards Ltd., London, UK.

British Standards Institute (2014). *BS 8545 : 2014 Young Trees: From Nursery to Independence in the Landscape*. BSI Standards Ltd., London, UK.

British Standards Institute (2013). *BS 42020 : 2013 Biodiversity. Code of practice for planning and development*. BSI Standards Ltd., London, UK.

British Standards Institute (2012). *BS 5837 : 2012 Trees in relation to design, demolition and construction — Recommendations*. BSI Standards Ltd., London, UK.

British Standards Institute (2010*).* *BS 3998 : 2010 Tree work - recommendations*. BSI Standards Ltd., London, UK.

Cautionary note. These are the principal arboricultural and ecological Standards we believe to be relevant to the context of the present text and our related site reports. Please be aware that the BSI constantly produces new Standards in many domains, some of which are updated editions and others are cross-related between disciplines. This can be confusing. Please always take professional legal advice before acting if you are unsure about the interpretation of statutes or formally adopted best practice.

PLANS

Please see separate Tree Constraints Plan (TCP), Tree Impact Plan (TIP) and Tree Protection Plan (TPP).

CAPABILITY and QUALITY ASSURANCE

Founded in 1985 to provide high quality professional services to meet an increasing market demand in applied environmental sciences, the Practice stems from the original Betts family business which was established in 1760 for the refining and recycling of high value industrial wastes and mineral ores. Betts thus offer an unusual blend of technological and practical expertise in a range of environmental disciplines, allied particularly to the biological conservation legislation and biodiversity policies of recent years. Contracts undertaken cover a wide spectrum of projects at local, national and international levels in the construction, extractive, agricultural, leisure, energy and general industrial sectors. Scientific staff belong to appropriate professional institutes by whose codes of practice they abide. Due consideration of the British Standards on Biodiversity is included in relevant work and applied where appropriate.

Chris Garner - Principal Arboricultural Consultant

Chris has a quarter of a century's experience in his field. He has full accreditation with the Consulting Arborist Society and is a professional member of the Arboricultural Association and other relevant organisations. Chris works professionally at a high level and makes a particular point of working with clients to achieve a common goal. Projects include TPO applications, appeals, development site tree surveys in accordance with BS5837:2012, arboricultural impact assessments, arboricultural method statements, tree protection plans, etc.

NB. Please be aware that site surveys inevitably miss species not apparent on the date of visit(s) by reason of seasonality, mobility, habits or chance. Results are indicative and given in good faith but they are not a guarantee of presence or absence of any particular taxa

Please note that this report is a baseline ecological site audit of factors and features that may be significant for regulatory compliance and biodiversity policies relating to change of use or other disturbance. Such reports may not, on their own, contain sufficient information for a planning application and may require further more detailed study to assure compliance.

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