

CANMOOR

PLOTS B, WINDRUSH INDUSTRIAL ESTATE

TREE SURVEY TO BS 5837:2012



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PLOT B, WINDRUSH INDUSTRIAL ESTATE

1.0 Introduction:

- 1.1 The tree survey for the site Plot B at the Windrush Industrial Estate was carried out by Bea Landscape Design on behalf of Canmoor on the 2nd May 2023 for submission to the local planning authority West Oxfordshire District Council.
- 1.2 The tree survey inspection was carried out from ground level only and no invasive diagnostic tools were used. This is a pre-development site inspection prepared in accordance with BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendations' and the report is valid and relevant only as part of the planning process.
- 1.3 It should be noted that tree surveys carried out at specific times of year are subject to seasonal limitations. For example; in spring leaves are not present or are just emerging and fungi are generally not visible (depending on species) which limits the assessment of a trees physiological condition, in summer trees are in leaf which reduces the visibility of the crown and can limit the ability to assess the structural condition with fungi not generally visible (depending on species), in autumn there is a decline in leaf quality / cover affording an improved view of the crown and fungal fruiting bodies can be present, in winter the structure of the crown can be easily assessed however assessment of physiological condition is limited and fungi are generally not visible.
- 1.4 Trees are dynamic natural structures and require frequent monitoring if predictable failures are to be identified. As such the trees should be re-inspected within at least a two year period from the date of this report or when changes occur to the trees (such as appearance of fungal growths, splits in branches etc.) or changes in their immediate environment occur. Any recommendations for action should also be carried out within this period unless identified in the report as requiring immediate action.
- 1.5 Some tree failures are not predictable such as those occurring during 'freak weather' conditions and those without external symptoms, these types of failure are not covered by this report.
- 1.6 The tree survey schedules document 2343/EH/TS001 and survey drawing 23-043-P-01 are included within this report. The tree survey is based on the topographical survey carried out by Greenhatch Group in February 2021. It should also be noted that a small number trees surveyed T02, T07, T08, T17, T18 & T19 are on or just outside of the site boundary and as such were not identified on the original topographical survey. The location of these trees has been estimated using triangulation and their location should not be relied on for construction purposes.
- 1.7 In accordance with British Standard 5837: 2012 the survey records the tree common names (refer to Appendix A for a key to scientific names), height, stem diameter and branch spread and existing height above ground level of the canopy or first significant branch including life stage, general observations (such as structural, physiological condition and/or preliminary management recommendations) and the estimated remaining contribution in years.
- 1.8 Each tree is also awarded a category grading based on Table 1 'Cascade Chart for Tree Quality Assessment' of the British Standard as included within Appendix C.

The following are an explanation of the terms used to describe the life stage, physiological condition and sizes referred to within the tree survey schedule.

Life Stage

| | |
|---------------------------|--|
| <i>Young</i> | A tree in the first third of its expected life span. |
| <i>Semi-mature</i> | A tree within the second third of its expected life span. |
| <i>Mature</i> | A tree within the final third of its expected life span. |
| <i>Over mature</i> | A tree in natural decline. |
| <i>Notable</i> | A mature tree that stands out in the local environment because it is large in comparison with other trees around it. The tree doesn't have any obvious veteran characteristics, but may be taller than ancients and fatter than some veterans. Notable trees are usually worthy of recognition and can be potential, next generation veteran trees. |
| <i>Transition veteran</i> | A mature tree that shows three veteran features i.e rot sites, holes & water pockets, deadwood, hollowing and fungal fruiting bodies. Transition veterans have some habitat characteristics and may become potentially important veteran trees for biodiversity in time. |
| <i>Veteran</i> | Non ancient trees of any diameter that show four or more veteran features i.e rot sites, holes & water pockets, deadwood, hollowing and fungal fruiting bodies. These trees show the habitat characteristics of veteran trees that are thought to be important in terms of biodiversity. A veteran tree is a survivor that has developed some of the features found on an ancient tree but not necessarily as a consequence of time, but of its life or environment. |
| <i>Ancient</i> | An over mature tree identified primarily by the girth. Likely to have abundant veteran tree features. An ancient tree has great aesthetic appeal and is defined by the following characteristics; a small canopy exhibiting stag headedness following crown retrenchment; with a very wide hollowing trunk relative to other trees of the same species and one or more openings to the outside exhibiting the fruiting bodies of heart rot fungi |

Physiological condition

| | |
|-------------|--|
| <i>Good</i> | The tree appears to have no obvious defects. |
| <i>Fair</i> | The trees condition is slightly compromised and considered to be remediable. |
| <i>Poor</i> | The trees condition is significantly compromised and considered non-remediable. Significant defects. |

Sizes:

- Minor A diameter of less than 25 millimetres.
- Moderate A diameter of between 25 to 50 millimetres.
- Major A diameter of greater than 50 millimetres.

1.9 This report does not consider any potential influence that trees may have upon load bearing soils beneath existing or proposed structures through abstraction of water by their roots (i.e. soil shrinkage and expansion and subsequent building subsidence and heave). The advice of a structural engineer should be sought with regard to appropriate foundation depths for new buildings with reference to NHBC standards Chapter 4.2 (NHBC, 2011).

2.0 Context:

2.1 The site is located in the Windrush Industrial estate in the Witney area of the West Oxfordshire district as identified in Figure 01. Location Plan.

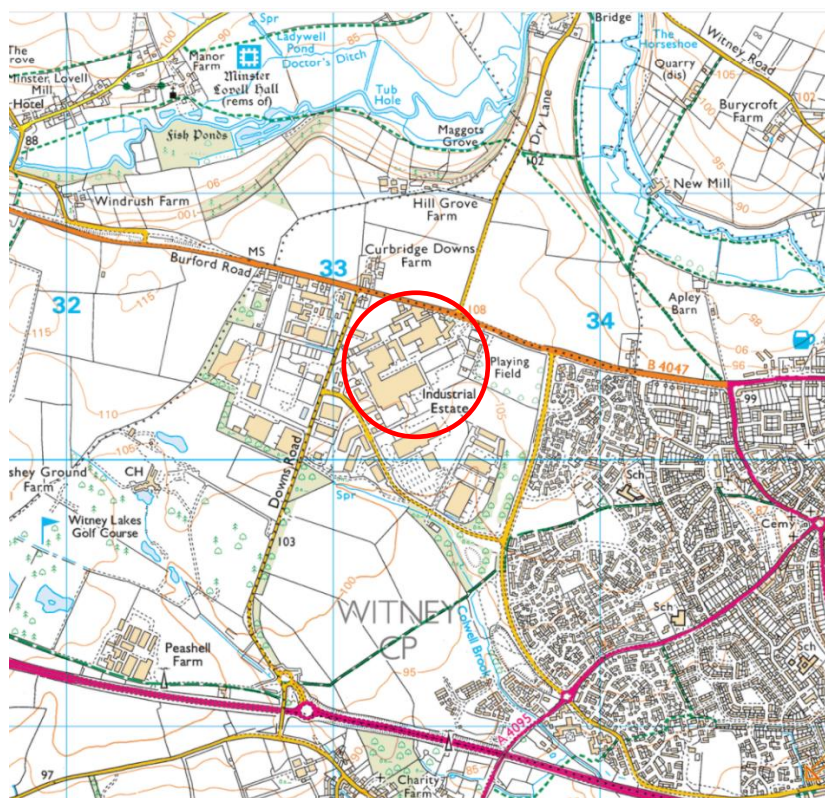


Figure 1. Location Plan

2.2 The area surveyed is currently occupied by industrial buildings with associated service yard, access road and car parking (refer to Figure 02. Aerial Photograph below).

2.3 The topography of the site is generally level with gradual fall from North to South with localised level changes around the building including retaining walls and slopes.



Figure 2. Aerial Photograph

2.4 In order to inform the design of any future development taking account retained, removed and proposed trees; it is recommended that a soil assessment or geotechnical survey is undertaken to determine the soils shrinkability. This can affect the extent of the root protection area, tree protection and ultimately foundation design.

3.0 Tree Survey Summary:

3.1 The majority of the trees surveyed can be associated with the development of the Windrush Industrial Estate from 1960's and are generally considered to be of low to moderate quality and value.

3.2 Trees T01 to T06 are a number of predominantly low quality and value Purple leaved maple, False acacia and Apple trees growing within the hard and soft landscaped areas to the front of the existing buildings (refer to Figure 3 below). Trees T01, T04 and T06 are growing within raised brick planters with the estimated root protection areas shown as a radius as the size of tree indicates a greater root spread than the size of the planters would indicate.



Figure 3. View Southwest towards T01-T05



Figure 4. View North towards T07-T13



Figure 5. View Northeast towards T17 & T18



Figure 6. View Northwest towards T19

3.3 To the East of the survey area is a slope down from the adjacent site planted with ornamental shrubs and a number of young trees including Whitebeam, Rowan, Apple and Hawthorn of varying value and condition (refer to Figure 4 above).

3.4 To the rear of the site are a number of young trees including Hawthorn, Alder buckthorn and Apple adjacent to the yard and Ash adjacent to the rear site access including T19 a mature offsite tree of moderate quality and value (refer to Figures 5 & 6 above).

4.0 Tree Preservation Orders & Conservation Areas

4.1 It is our understanding that trees there are currently no Tree Preservation Orders designated within the survey area, the site is not within a Conservation Area and no surveyed trees are considered to be Veteran or Ancient or listed on the Woodland Trust Ancient Tree Inventory. For the avoidance of doubt we would recommend that the local authority tree officer is contacted and confirmation obtained.

5.0 Protected Species

5.1 The Wildlife & Countryside Act 1981 forms the legislative basis for protecting Britain's flora and fauna, together with its 1985 and 1991 amendments, the subsequent variations to the schedule of orders, and strengthening amendments made within the Countryside & Rights of Way Act 2000.

5.2 Nesting birds are afforded statutory protection by the Wildlife & countryside Act 1981. The bird nesting season is officially from February until August with the busiest time for nesting birds from the 1st March until the 31st July according to species.

5.3 As such, consideration should be given to the presence of nesting birds when clipping hedges, pruning or removing trees or removing ivy or other climbing plants during the bird nesting season. Trees, hedges and ivy should be inspected for nests prior to pruning or removal and any work likely to destroy or disturb active nests should be avoided until the young have fledged. Hedges provide valuable nesting sites for a wide range of birds and clipping should therefore be avoided during the months of March to July.

5.4 In Britain all bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) and under Schedule 2 of the Conservation (Natural Habitats) Regulations 1994 (as amended). In England, under current legislation, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young;
- Damage or destroy a bat roost (note – this is an 'absolute' offence whereby intent or recklessness does not have to be proved).
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat;
- Intentionally or recklessly disturb at bat roost; and
- Intentionally or recklessly obstruct access to a roost.

5.5 In this respect it should be noted that bats utilise tree cavities, cracks and dense ivy as roosts. It is also possible that unidentified bat habitat features may be located high up in the tree crowns and all personnel subsequently carrying out tree works at the site should therefore be vigilant and mindful of the possibility that roosting bats may be present. If any bats roosts are identified during tree works then it is essential that the works are halted immediately and an ecologist investigate them prior to works continuing.

6.0 Tree Surgery & Removal:

6.1 The following trees are scheduled to be felled, or removed due to their poor condition, being dead or structurally dangerous and unsuitable for retention; T07 & T10.

6.2 The preliminary tree management works and tree removal are to be carried out by an Arboricultural Association accredited tree surgeon in accordance with BS 3998: 2010 'Tree Work - Recommendations' with particular care to be taken where trees are in confined spaces or adjacent to highways.

7.0 Root Protection Area

7.1 In order to inform the future retention of existing trees the root protection area has been calculated for each tree in accordance with BS 5837:2012 Annex D, Table D.1 – Root Protection Area and using the two calculation methods as detailed within clause 4.6.1. The root protection areas are illustrated on the Tree Constraints Plan 21-21-02.

7.2 Where Veteran trees have been identified within the tree survey the root protection area has been based on a minimum of 15 times the diameter of the trunk in accordance with the standing advice from Natural England and the Forestry Commission.

7.3 Where pre-existing site conditions (i.e the presence of retaining walls) or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area had been illustrated

7.4 All trees that are being retained on site should be protected by barriers and/or ground protection before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. These 'Construction Exclusion Zones' are to be protected by barriers and ground protection in accordance with section 6.2 of BS 5837:2012 and as specified and indicated on an approved Tree Protection Plan to be prepared by the project arboriculturalist.

7.5 Of particular importance on sites where there are significant level changes it should be noted that existing ground levels are to be retained within the RPA. Intrusion into soil (other than for piling) within the RPA is generally not acceptable, and topsoil within it should be retained in situ and any re-grading works or the location of retaining features should take this into account. The advice of an arborist should be sought where underground structures are present within the RPA are, or will become, redundant. In general it is preferable to leave such structures in situ, as their removal could damage adjacent tree roots.

7.6 Where construction operations are proposed and permitted within the Root Protection Area precautions should be taken and specified within an Arboricultural Method Statement prepared by the project arboriculturalist to maintain the condition and health of the root system in accordance with Section 7 'Demolition and construction in proximity to existing trees' of BS 5837:2012.

7.7 Where permanent hard surfacing within the RPA is considered unavoidable, site-specific and specialist arboricultural and construction design advice should be sought to determine whether it is achievable without significant adverse impact on trees to be retained. As a general guide new permanent hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA.

8.0 Above Ground Constraints

8.1 In addition to the condition of the tree the probable impact on proposed buildings or development of trees considered for retention should be assessed to take into account the root protection areas, shadow patterns, species characteristics, maintenance requirements and allowances for space and future tree growth.

Shading:

8.2 In order to assess any unreasonable obstruction of sunlight or daylight to any proposed development tree shadow patterns are also illustrated on the Tree Constraints Plan 23-043-P-02. The orientation of the site means that the shadows from a limited number of larger trees shade areas of the site.

8.3 The survey includes species that, have typically have dense canopies or large foliage such as Norway maples and further consideration should be given in respect of these shading characteristics. The ultimate height and spread of the tree (as noted below) will also affect the shading of the site in the future.

Species Characteristics:

8.4 Trees are living organisms and exhibit structural and seasonal characteristics that may give rise to conflicts in proximity to buildings, footpaths and hard standing areas.

8.5 Apple are fruiting trees and as such can cause slippery surfaces and increased maintenance during the autumn.

8.6 Ash trees are a large spreading deciduous tree species with an upright branching habit, often exhibiting co-dominant stems with included bark. Heavy branches are susceptible to splits, cracks and branch failures. The lower shaded branches in the canopy have the propensity to die off and drop. This can result in increased maintenance requirements to surfaces and possible damage to structures located in the immediate vicinity.

8.7 False acacia or Black locust are a medium to large ornamental tree planted in street and parks. Native to North America the tree was introduced in 1630 and typically lives for 75-150 years. The tree is leguminous with brittle wood and can suffer from wind damage or mechanical breakage and basal suckers. It should also be noted that parts of the tree are toxic, particularly the bark with a risk of livestock poisoning.

8.8 Norway maple are larger leaved deciduous species that drop their leaves in the autumn. This can result in increased maintenance requirements to structures or surfaces located in the vicinity.

8.9 The following trees species are identified within the NHBC Standards Chapter 4.2 as of high water demand and therefore impacting significantly on foundation design on high shrinkability soils; Cypress, Elm, Eucalyptus Hawthorn, Oak, Poplar and Willow.

Ultimate Height and Spread:

8.10 Where surveyed trees are classified as young to semi mature their future growth in terms of predicted height and canopy spread at maturity (refer to Appendix B) should be considered to prevent direct potential damage to structures or buildings, minimise future pressure for removal and increase the effect of shading as described above.

Appendix A: Scientific Names

| <i>Common names:</i> | <i>Scientific Name</i> |
|----------------------|---------------------------------|
| Common alder | <i>Alnus glutinosa</i> |
| Crab apple | <i>Malus sylvestris</i> |
| Common ash | <i>Fraxinus excelsior</i> |
| False acacia | <i>Robinia pseudacacia</i> |
| Silver birch | <i>Betula pendula</i> |
| Downy birch | <i>Betula pubescens</i> |
| Common beech | <i>Fagus sylvatica</i> |
| Wild cherry | <i>Prunus avium</i> |
| Bird cherry | <i>Prunus padus</i> |
| Cherry plum | <i>Prunus cerasifera</i> |
| Horse chestnut | <i>Aesculus hippocastanum</i> |
| Sweet chestnut | <i>Castanea sativa</i> |
| Cypress | <i>Chamaecyparis cultivar</i> |
| Leyland cypress | <i>Cupressus x leylandii</i> |
| Lawson cypress | <i>Chamaecyparis lawsoniana</i> |
| Douglas fir | <i>Pseudotsuga menziesii</i> |
| Common hawthorn | <i>Crataegus monogyna</i> |
| Common hornbeam | <i>Carpinus betulus</i> |
| Holly | <i>Ilex aquifolium</i> |
| Laburnum | <i>Laburnum anagyroides</i> |
| Small leaved lime | <i>Tilia cordata</i> |
| Common lime | <i>Tilia x europaea</i> |
| Large leaved lime | <i>Tilia platyphyllos</i> |
| European larch | <i>Larix decidua</i> |
| Field maple | <i>Acer campestre</i> |
| Norway maple | <i>Acer platanoides</i> |
| Sycamore | <i>Acer pseudoplatanus</i> |
| Common oak | <i>Quercus robur</i> |
| Sessile oak | <i>Quercus petraea</i> |
| Holm oak | <i>Quercus ilex</i> |
| Pear | <i>Pyrus communis</i> |
| Scots pine | <i>Pinus sylvestris</i> |
| Aspen poplar | <i>Populus tremula</i> |
| Lombardy poplar | <i>Populus italica</i> |
| Hybrid black poplar | <i>Populus x canadensis</i> |
| London plane | <i>Platanus x hispanica</i> |
| Norway spruce | <i>Picea abies</i> |
| Rowan | <i>Sorbus aucuparia</i> |
| Whitebeam | <i>Sorbus aria</i> |
| Wild service tree | <i>Sorbus torminalis</i> |
| Crack willow | <i>Salix fragilis</i> |
| Goat willow | <i>Salix caprea</i> |
| White willow | <i>Salix alba</i> |
| Weeping willow | <i>Salix babylonica</i> |
| Yew | <i>Taxus baccata</i> |

Appendix B: Predicted Tree Height & Canopy Spread

| <i>Common name</i> | <i>Height (m)</i> | <i>Canopy Spread (m)</i> |
|---------------------|-------------------|--------------------------|
| Common alder | 25 | 10 |
| Crab apple | 9 | 7 |
| Common ash | 30 | 20 |
| False acacia | 25 | 15 |
| Silver birch | 25 | 10 |
| Downy birch | 20 | 10 |
| Common beech | 25 | 15 |
| Wild cherry | 20 | 10 |
| Bird cherry | 15 | 10 |
| Cherry plum | 10 | 10 |
| Horse chestnut | 25 | 20 |
| Sweet chestnut | 30 | 15 |
| Cypress | 15-40 | 2-5 |
| Leyland cypress | 35 | 5 |
| Lawson cypress | 15-40 | 2-5 |
| Douglas fir | 25-50 | 6-10 |
| Common hawthorn | 10 | 8 |
| Common hornbeam | 25 | 20 |
| Holly | 25 | 8 |
| Laburnum | 8 | 8 |
| Small leaved lime | 25 | 15 |
| Common lime | 35 | 15 |
| Large leaved lime | 30 | 20 |
| European larch | 30 | 4-6 |
| Field maple | 10 | 8 |
| Norway maple | 25 | 15 |
| Sycamore | 30 | 25 |
| Common oak | 35 | 25 |
| Sessile oak | 30 | 25 |
| Holm oak | 25 | 20 |
| Pear | 15 | 10 |
| Scots pine | 15-30 | 6-9 |
| Aspen poplar | 20 | 10 |
| Lombardy poplar | 30 | 5 |
| Hybrid black poplar | 35 | 20 |
| London plane | 30 | 20 |
| Norway spruce | 20-40 | 6 |
| Rowan | 15 | 7 |
| Whitebeam | 10-25 | 10 |
| Wild service tree | 20 | 12 |
| Crack willow | 15 | 15 |
| Goat willow | 10 | 8 |
| White willow | 25 | 10 |
| Weeping willow | 12 | 12 |
| Yew | 10-20 | 8-10 |

| Category and definition | Criteria (including subcategories where appropriate) | | | Identification on plan |
|---|---|---|---|------------------------|
| TREES UNSUITABLE FOR RETENTION | | | | |
| <p>Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.</p> | <ul style="list-style-type: none"> Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other U category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.</i></p> | | | DARK RED |
| TREES TO BE CONSIDERED FOR RETENTION | | | | |
| | 1 Mainly arboricultural values | 2 Mainly landscape values | 3 Mainly cultural values, including conservation | |
| <p>Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years.</p> | Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue) | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features | Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) | LIGHT GREEN |
| <p>Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.</p> | Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation | Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality | Trees with material conservation or other cultural value | MID BLUE |
| <p>Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.</p> | Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm | Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary / transient landscape benefits. | Trees with no material conservation or other cultural value | GREY |

Appendix D: Root Protection Area

| Single stem diameter <i>mm</i> | Radius of nominal circle <i>m</i> | Root Protection Area (RPA) <i>m²</i> |
|-----------------------------------|--------------------------------------|--|
| 75 | 0.90 | 3 |
| 100 | 1.20 | 5 |
| 125 | 1.50 | 7 |
| 150 | 1.80 | 10 |
| 175 | 2.10 | 14 |
| 200 | 2.40 | 18 |
| 225 | 2.70 | 23 |
| 250 | 3.00 | 28 |
| 275 | 3.30 | 34 |
| 300 | 3.60 | 41 |
| 325 | 3.90 | 48 |
| 350 | 4.20 | 55 |
| 375 | 4.50 | 64 |
| 400 | 4.80 | 72 |
| 425 | 5.10 | 81 |
| 450 | 5.40 | 92 |
| 475 | 5.70 | 102 |
| 500 | 6.00 | 113 |
| 525 | 6.30 | 124 |
| 550 | 6.60 | 137 |
| 575 | 6.90 | 150 |
| 600 | 7.20 | 163 |
| 625 | 7.50 | 177 |
| 650 | 7.80 | 191 |
| 675 | 8.10 | 206 |
| 700 | 8.40 | 222 |
| 725 | 8.70 | 238 |
| 750 | 9.00 | 255 |
| 775 | 9.30 | 272 |
| 800 | 9.60 | 290 |
| 825 | 9.90 | 308 |
| 850 | 10.20 | 327 |
| 875 | 10.50 | 346 |
| 900 | 10.80 | 366 |
| 925 | 11.10 | 387 |
| 950 | 11.40 | 408 |
| 975 | 11.70 | 430 |
| 1000 | 12.00 | 452 |
| 1025 | 12.30 | 475 |
| 1050 | 12.60 | 499 |
| 1075 | 12.90 | 519 |
| 1100 | 13.20 | 547 |
| 1125 | 13.50 | 573 |
| 1150 | 13.80 | 598 |
| 1175 | 14.10 | 625 |
| 1200 | 14.40 | 652 |
| 1225 | 14.70 | 679 |
| 1250 | 15.00 | 707 |

Appendix E: Technical Definitions

| | |
|---|---|
| Access Facilitation Pruning: | One off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site. |
| Arboricultural Impact Assessment | An evaluation of the direct and indirect effects of the proposed design on the trees identified within the Tree Survey, where necessary recommending mitigation or amendments to the design. |
| Arboricultural Method Statement | Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained. |
| Construction Exclusion Zone | An area based on the root protection area from which access is prohibited for the duration of a project |
| Root Protection Area (RPA) | The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is considered a priority |
| Tree Protection Plan | A scale drawing informed by descriptive text where necessary, based upon finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures. |

Disclaimer:

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Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that Bea Landscape Design performed the work. The content of this report has been provided in accordance with the provisions of the BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

Nothing in this report constitutes legal opinion. If legal opinion is required the advice of a qualified legal professional should be secured. Observations relating to ecology and the condition of built structures have been made from an arboricultural point of view and, unless stated otherwise, do not constitute structural or ecological advice.

Tree Survey in accordance with BS5837:2012

Estimated dimensions (for offsite or otherwise inaccessible trees where accurate data cannot be recovered).

| Tree / Group Number | Common Name | Height (m) | Stem(s) Diameter (mm) | Branch Spread (m) | | | | Canopy Height (m) / First Significant Branch | Life Stage | Physiological Condition | Structural Condition | Preliminary Management Recommendations | Remaining Contribution (years) | Category Grading | Root Protection Area (m ²) |
|---------------------|----------------------------|------------|-----------------------|-------------------|-----|-----|-----|--|-------------|-------------------------|--|--|--------------------------------|------------------|--|
| | | | | N | E | S | W | | | | | | | | |
| T01 | False acacia | 11 | 350 | 5.5 | 6 | 5 | 7 | 3 | Young | Fair | Restricted root environment, growing within brick planter. Random past pruning / surgery. Major deadwood. Rubbing / fused limbs. Epicormic growth at base. | Remove epicormic growth. | 10+ | C1 | 55 |
| T02 | Apple | 7 | 320 | 3.5 | 4.5 | 3.5 | 3 | 1.5 | Semi mature | Good | Restricted root environment with retaining wall to South, Road to North. Ivy. | Sever ivy and reinspect in 2 years. | 20+ | B2 | 46 |
| T03 | Apple | 6 | 290 | 3.5 | 4.5 | 4 | 4 | 2 | Semi mature | Fair | Restricted root environment with retaining wall to South, Road to North & East. Major deadwood. Ivy. | Sever ivy and reinspect in 2 years. | 10+ | C2 | 38 |
| T04 | Purple leaved Norway maple | 7 | 260 | 3 | 3 | 3 | 3 | 2 | Young | Fair | Restricted root environment, growing within brick planter. Major deadwood. Random past pruning. Dead central stem. | Remove dead stem. | 10+ | C1 | 31 |
| T05 | Oak | 6 | 70 | 1.5 | 1.5 | 1.5 | 1.5 | 2 | Young | Good | | No action required. | 40+ | C1 | 2 |
| T06 | Purple leaved Norway maple | 7 | 260 | 3 | 4 | 3 | 2.5 | 2 | Young | Fair | Restricted root environment, growing within brick planter. Random past pruning / surgery. Major deadwood. Epicormoc growth. | No action required. | 10+ | C1 | 31 |

Tree Survey in accordance with BS5837:2012

Estimated dimensions (for offsite or otherwise inaccessible trees where accurate data cannot be recovered).

| Tree / Group Number | Common Name | Height (m) | Stem(s) Diameter (mm) | Branch Spread (m) | | | | Canopy Height (m) / First Significant Branch | Life Stage | Physiological Condition | Structural Condition | Preliminary Management Recommendations | Remaining Contribution (years) | Category Grading | Root Protection Area (m ²) |
|---------------------|-------------|------------|-----------------------|-------------------|---|-----|---|--|-------------|-------------------------|---|--|--------------------------------|------------------|--|
| | | | | N | E | S | W | | | | | | | | |
| T07 | Whitebeam | 7 | 150# | 1 | 2 | 2 | 1 | 1.5 | Young | Poor | Restricted root environment growing at edge of concrete hard standing. Unbalanced / suppressed crown. Tree cut back / damaged during construction of adjacent building. Split trunk / lean to West. | Remove to ground level. | <10 | U | 10 |
| T08 | Whitebeam | 9 | 150, 150# | 2.5 | 3 | 2.5 | 3 | 2 | Young | Fair | Restricted root environment growing at edge of concrete hard standing. Twin stemmed tree. | Remove debris / stone from base of tree to East. | 10+ | C1 | 20 |
| T09 | Whitebeam | 7 | 300 | 4 | 3 | 4 | 3 | 2 | Semi mature | Fair | Growing at top of slope. Moderate deadwood. Random past pruning / surgery. Restricted root environment with concrete path to East, road to South. | No action required. | 20+ | B2 | 41 |
| T10 | Apple | 6 | 100, 100 | 1 | 1 | 1 | 1 | / | Young | Poor | Twin stemmed. Random past pruning / surgery. Restricted root environment with concrete path to East, road to South. | Remove to ground level. | <10 | U | 9 |
| T11 | Rowan | 6 | 150 | 1 | 1 | 2 | 2 | 1.5 | Young | Fair | Random past pruning / surgery. Restricted root environment with concrete path to East, road to South. | No action required. | 10+ | C1 | 10 |

Tree Survey in accordance with BS5837:2012

Estimated dimensions (for offsite or otherwise inaccessible trees where accurate data cannot be recovered).

| Tree / Group Number | Common Name | Height (m) | Stem(s) Diameter (mm) | Branch Spread (m) | | | | Canopy Height (m) / First Significant Branch | Life Stage | Physiological Condition | Structural Condition | Preliminary Management Recommendations | Remaining Contribution (years) | Category Grading | Root Protection Area (m ²) |
|---------------------|-----------------|------------|-------------------------|-------------------|-----|-----|-----|--|-------------|-------------------------|---|--|--------------------------------|------------------|--|
| | | | | N | E | S | W | | | | | | | | |
| T12 | Hawthorn | 6 | 75, 75, 75, 75, 75, 75, | 2 | 2 | 2 | 2 | / | Young | Fair | Random past pruning / surgery. Restricted root environment with concrete path to East, road to South. | No action required. | 20+ | C1 | 15 |
| T13 | Whitebeam | 8 | 150 | 2.5 | 2.5 | 2.5 | 2.5 | 2 | Young | Fair | Twin stemmed. Restricted root environment with concrete path to East, road to South. | No action required. | 10+ | C1 | 10 |
| T14 | Hawthorn | 7 | 150, 150, 200 | 3.5 | 3.5 | 3.5 | 3.5 | / | Young | Fair | Corrected trunk lean, suspected past partial windthrow. Growing from rubble. | No action required. | 20+ | C2 | 38 |
| T15 | Apple | 6 | 85, 85, 85 | 2.5 | 2.5 | 2.5 | 2.5 | / | Young | Fair | Growing in rubble. | No action required. | 20+ | C1 | 9 |
| T16 | Alder buckthorn | 4 | 50, 50, 75 | 2.5 | 2.5 | 2.5 | 2.5 | / | Young | Good | Random past pruning. Storm damage. Growing in rubble. | No action required. | 20+ | C1 | 5 |
| T17 | Ash | 9 | 180, 180# | 3.5 | 3.5 | 3.5 | 3.5 | 2 | Young | Fair | Twin stemmed. Unable to access. | No action required. | 20+ | C1 | 29 |
| T18 | Ash | 6 | 100# | 2.5 | 2.5 | 2.5 | 2.5 | / | Young | Good | | No action required. | 20+ | C1 | 5 |
| T19 | Ash | 12 | 400 | 5# | 6 | 5 | 5 | 2 | Semi mature | Fair | Restricted root environment with road to South and building to North. Extended limb to East. | Reduce extended limb to trunk. | 20+ | B2 | 72 |
| | | | | | | | | | | | | | | | 0 |

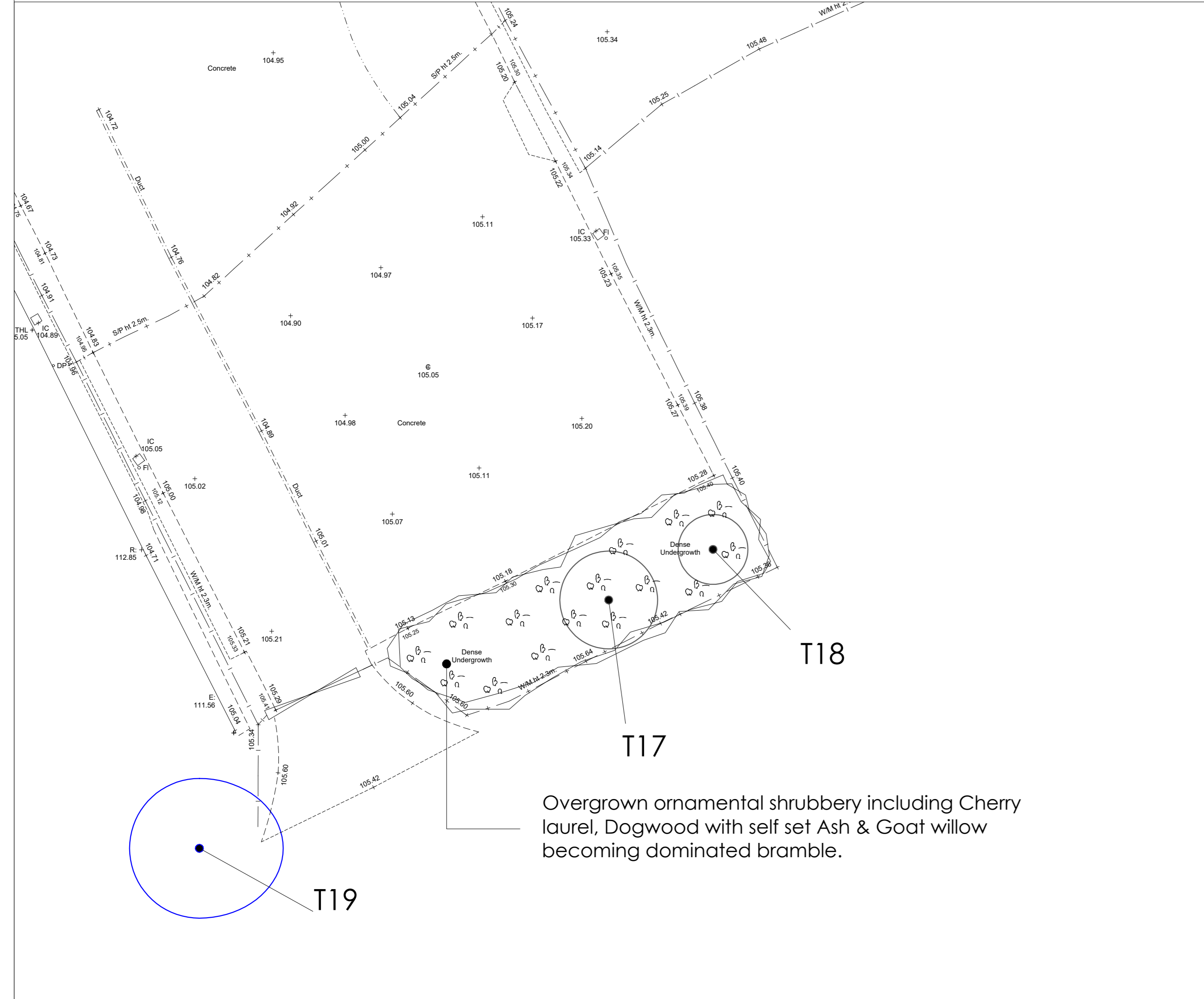
LEGEND: TREE SURVEY TO BS 5837:2012

NB: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

- T1 Category A: High quality and/or value.
- T2 Category B: Moderate quality and /or value.
- T3 Category C: Low quality and/or value
- T4 Category U: Trees unsuitable for retention.



INSET PLAN



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| rev | date | amendments | alt |
|-----|--------------|------------|-----|
| (-) | (00/00/0000) | (.....) | (-) |



client:
CANMOOR

project:
PLOT B, WINDRUSH INDUSTRIAL ESTATE

title:
TREE SURVEY

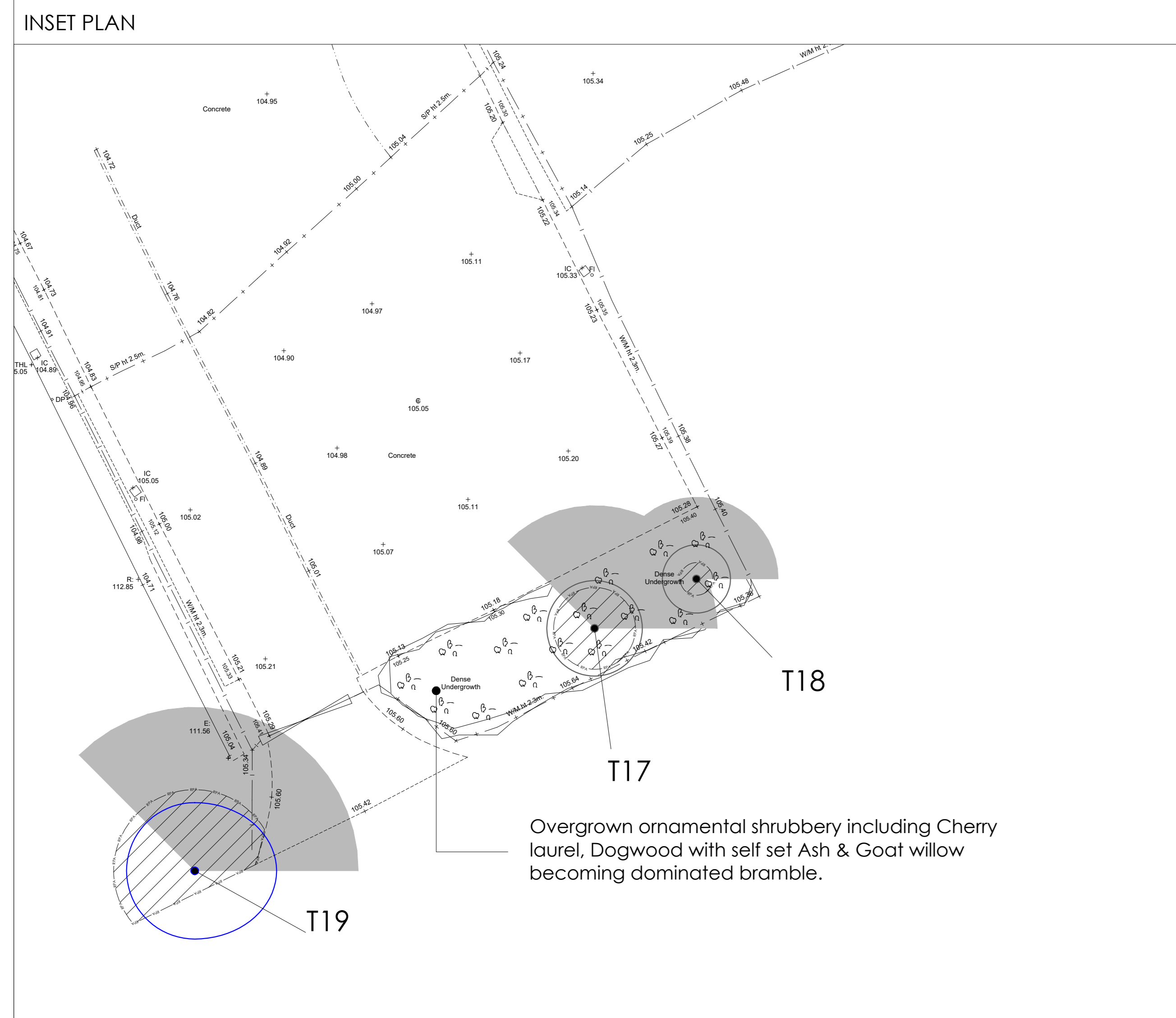
status:
PLANNING

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|--------------------|-------------------|------------------------|
| date: MAY 23 | drawn: E.C.H | number: 23-043-P-01 |
| scale/AD: 1:250 | checked: T.C-W | revision: (-) |

LEGEND: TREE SURVEY TO BS 5837:2012

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- T1
Category A: High quality and/or value.
- T2
Category B: Moderate quality and /or value.
- T3
Category C: Low quality and/or value
- T4
Category U: Trees unsuitable for retention.
- RPA: Root Protection Area: minimum area to be protected during construction in accordance with BS 5837:2012.
- Shadow Arc



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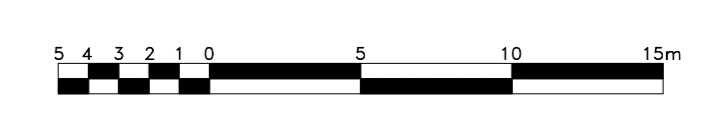
| rev | date | amendments | alt |
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| (-) | (00/00/0000) | (.....) | (-) |



client:
CANMOOR
project:
PLOT B, WINDRUSH INDUSTRIAL ESTATE
title:
TREE CONSTRAINTS PLAN

status:
PLANNING
date: MAY 23
scale: 1:250
drawn: E.C.H.
checked: T.G-W
number: 23-043-P-02
revision: (-)

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