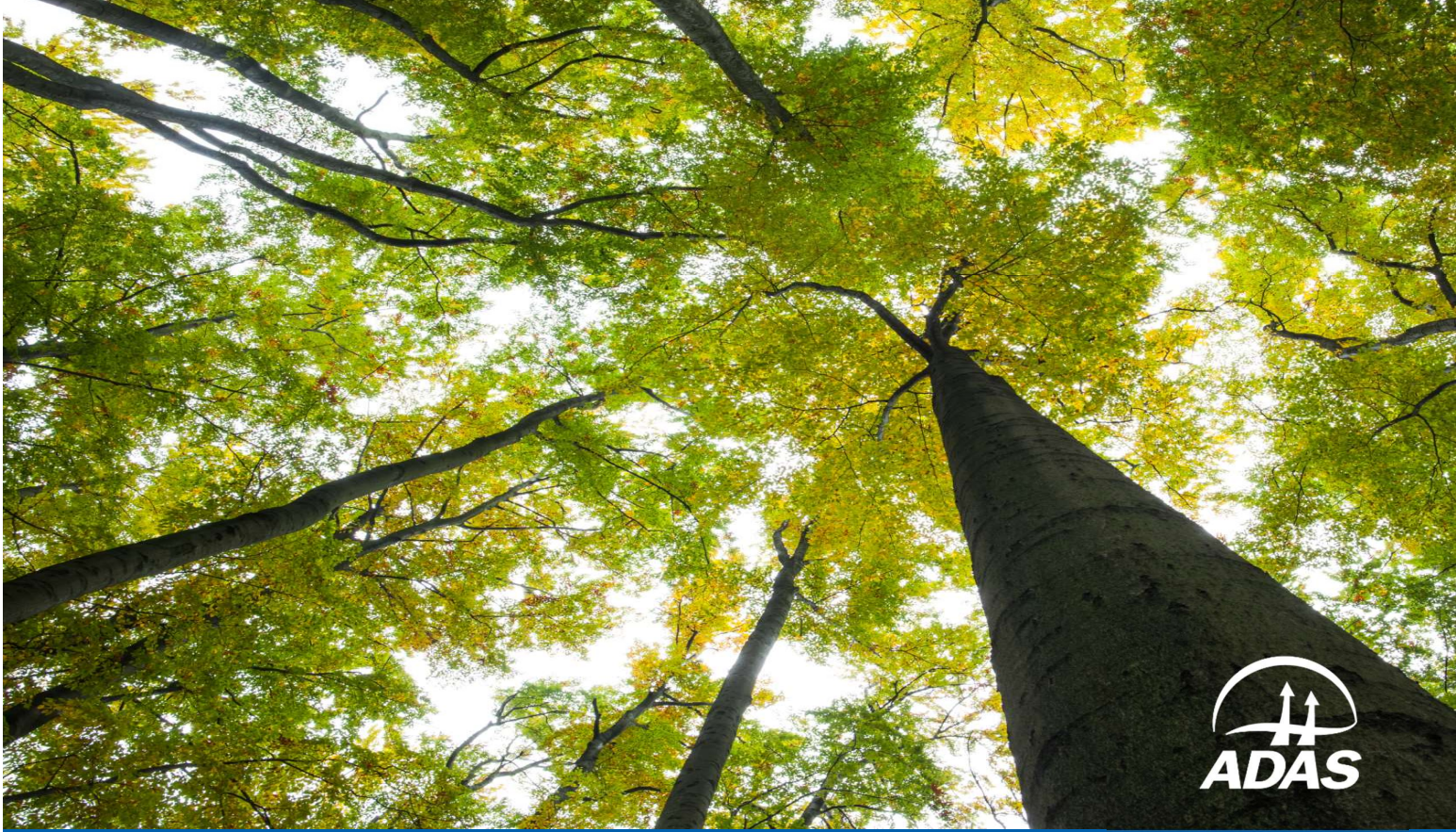




Arboricultural Method Statement

Priory Farm Solar Array

Date: July 2024

Submitted to:

Axis P.E.D Ltd

ADAS Ref: 1052545

Prepared by:

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Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by ADAS for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of ADAS.

Revision History

Revision	Date	Amendment
-	July 2024	Initial Report

1 Executive Summary

AGR Solar 4 Limited, hereafter known as AGR, have been granted planning permission for a solar development on land measuring 88 hectares located to the north and east of Great Wymondley, Hertfordshire. The site, known as Priory Farm Solar Array, is currently being used for agricultural purposes.

The development will also include the installation of a cable route within the carriageway, starting from Graveley Lane, Great Wymondley, SG4 7EX (grid ref: TL 22189 28555), travelling south along Priory Lane, west along Stevenage Road, south along Blakemore End Road, and then west along Spurberry Hill where it terminates south of the National Grid Wymondley Substation, St Ippolyts, SG4 7JJ (grid ref: TL 20286 26686).

Planning permission was granted under appeal reference APP/X1925/V/23/3323321 (planning application reference 21/03380/FP) subject to conditions. Condition 21, to which this report relates, states that:

‘No development shall take place until an arboricultural method statement (AMS) identifying measures to protect trees and hedgerows to be retained, has been submitted to, and approved in writing by, the local planning authority. The statement shall include a tree and hedgerow protection plan and measures to protect trees and hedgerows during site preparation, construction and landscaping operations’.

ADAS was commissioned to undertake a tree survey within the site in order to inform the production of this Arboricultural Method Statement, including tree protection methodology, for the works.

The tree survey was undertaken and identified 356 arboricultural features comprised of 224 individual trees, 103 groups of trees, 27 hedgerows, and two woodlands which have the potential to be impacted by the development proposals.

Of these tree features, nine were awarded a high-quality A grade, 122 were awarded a moderate-quality B grade, 215 were awarded a low-quality C grade, and 10 were awarded a U grade and some are recommended for removal.

A search conducted on North Hertfordshire Council’s website has confirmed that the main site consisting of the agricultural fields does not sit within a Conservation Area (CA). However, a section of the cable route measuring approximately 90m in length sits within the Great Wymondley CA at the junction of Graveley Lane, Graveley Road and Priory Road.

There were no available mapping resources on North Hertfordshire Council’s website to check for the presence of Tree Preservation Orders (TPOs). A search request was sent to North Hertfordshire Council to check for the presence of TPOs within the site and along the cable route. A response was received on

the 19th of July 2024 along with associated mapping establishing that there are TPOs present along the route but none are within a distance to be impacted by the works.

The site has no other designations, such as containing a Site of Special Scientific Interest (SSSI) or Ancient Woodland, which could be impacted by the works.

Damage to the roots, crowns or stems of trees owned by a third party (either public or private) could result in a claim for compensation should it have a negative impact on the condition of the tree. Should unauthorised works or damage be sustained to a tree within their work area, then Axis and/or its contractors could be subject to a civil case.

This report will provide the principles to adopt when working in close proximity to trees and is designed to assist in the discharging of the associated planning condition by demonstrating that AGR are taking reasonable steps to plan their work around trees.

ADAS believes that adopting the approach specified within this report will ensure that the proposed works will not have a significant impact on the health and stability of the trees which are to be retained and will particularly ensure that these trees continue to contribute to the amenity value of the local area.

2 Introduction

2.1 The Author

This document has been prepared by Arno van Heygen, an ADAS Senior Arboricultural and Forestry Consultant. Arno is an Associate member of the Arboricultural Association and Institute of Chartered Foresters. He has Level 6 Certificate in Arboriculture, an MSc in Environmental Forestry and 12 years of experience within the arboricultural and forestry industry.

2.2 Client Instruction

ADAS was instructed by Phil Roden, Technical Director of Axis on behalf of AGR, on the 11th June 2024 to carry out a tree survey and produce an Arboricultural Method Statement for the proposed development within the site known as Priory Farm Solar Array.

2.3 Purpose of Report

This report has been prepared to provide information in support of discharge of condition no. 21 of North Hertfordshire Council's planning consent reference number 21/02280/FP. Condition 21 states that; *'No development shall take place until an arboricultural method statement identifying measures to protect trees and hedgerows to be retained, has been submitted to, and approved in writing by, the local planning authority. The statement shall include a tree and hedgerow protection plan and measures to protect trees and hedgerows during site preparation, construction and landscaping operations.'*

The report provides information detailing the specific protection measures and precautionary working practices to be adopted to ensure the protection of retained trees within the site.

This document is intended as a reference point for all site operatives and a copy will remain with the site manager for the duration of the development.

This document may be used as a point of reference if there were to be a dispute over compliance with related planning conditions.

2.4 Proposed Works

The proposed works are to install solar PV arrays within the site and for the construction of associated infrastructure including associated battery storage containers, cables, transformer stations, storage buildings, deer/ stock fencing and internal access tracks.

2.5 Site description

The site is primarily composed of agricultural fields situated north and south of Graveley Lane, Great Wymondley, SG4 7HD. To the east of the main site is the A1 and to the west is the village of Great

Wymondley. A cable route will begin from Graveley Lane (grid ref: TL 22189 28555) which will travel west along Graveley Lane, south along Priory Lane, West along Stevenage Road, south along Blackmore End Road, and west along Spurberry Hill where it terminates south of the National Grid Substation (grid ref: TL 20286 26686).

Located within the agricultural fields are individual trees, groups of trees, hedgerows, and woodlands. These are primarily situated along field boundaries, with some trees and groups of trees being located along the A1 embankment.

Along the cable route are numerous individual trees, groups of trees, and hedgerows. Many of these are located within private residences or on private land situated along the route.

2.6 Assumptions and Limitations

This assessment is based upon the information provided by the client in addition to information collected by ADAS during the tree survey of the site undertaken in June 2024. The documents and drawings considered are detailed within **Table 1**.

Table 1: Documentation Considered

Author	Document Title	Drawing / Document Number	Date
Terra Measurement	Topographical Survey	4162_AGR Group Graveley Lane Great Wymondley.dwg	03/07/2024
Axis	General Arrangement	3004-01-003 General Arrangement Rev F.dwg	09/07/2024

The Tree Constraints Plan (TCP) contained in **Appendix 1** has been developed from the ADAS tree survey data and from the Terra Measurement drawing (ref:4162_AGR Group Graveley Lane Great Wymondley.dwg) provided by the client. This has been used to plot the tree features identified during the survey using the topographical positions provided within the drawing.

The Tree Protection Plan (TPP), contained in **Appendix 2**, has been developed from the TCP and from the Axis drawing titled General Arrangement (ref: 3004-01-003 General Arrangement Rev F.dwg).

This report is not a full hazard or risk assessment of trees and should not be used as such. Trees are living organisms and are constantly adapting to their ever-changing environment. No tree is completely safe and there is no guarantee that problems or deficiencies may not arise in the future, which have not been identified in this report. Therefore, this report is only valid for a period of one year from the date of the initial site inspection.

2.7 Tree Survey Methodology

The tree survey was carried out on the 25th, 27th and 28th June 2024 by ADAS Senior Arboricultural and Forestry Consultant Arno van Heygen and Assistant Arboricultural Consultant Kelly Hanson.

The tree survey was carried out in accordance with the recommendations contained within 'BS5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations'.

All trees have been visually inspected from ground level unless otherwise stated, with no climbing or boring tests being undertaken. The comments made on their condition are based on observable factors present at the time of inspection.

The information, shown in **Table 2** below, was recorded as part of the tree survey.

Table 2: Tree Survey Schedule heading descriptions

Column Heading	Description
Tree Ref No.	All individual trees and groups of trees have been given a unique reference number. Each number is prefixed by a letter. - T = Individual tree - G = Group of trees - H = Hedgerows - W = Woodlands
Species	The English common name has been used.
Single or Multiple stem (S or M)	'S' represents a tree which has a single clear stem to at least 1.5m above ground level. 'M(a)' represents a tree where the main stem divides into two to five stems below 1.5m above ground level, and 'M(b)' represents a tree where the main stem divides into 6 or more stems below a height of 1.5m.
Height (m)	Where possible tree heights are measured using a laser. In some instances, such as in close groups of trees, one height may be measured, and other nearby trees estimated from this height. Measurements are provided in metres.
Stem Diameter (mm)	S _n represents the stem number. Measurements are provided in millimetres at 1.5m above ground level for single stemmed trees.
Very Large Girth (y/n)	Girth is very large for species in accordance with Fig 1.3 of publication 'Ancient and other veteran trees: further guidance on management' Ancient Tree Forum 2013.
Ancient (A), Veteran (V), Notable (N)	Result of the RAVEN assessment © Julian Forbes-Laird 2018 www.flac.uk.com ; provided on separate ADAS Sheet 2. (RAVEN = Recognition of Ancient, Veteran and Notable Trees)
Branch Spread (m)	Measured in metres to the four cardinal compass points (N, E, S, W).
Crown Clearance	- Height in metres of the first significant branch, and the direction of growth. - Height in metres of lowest part of crown.

Column Heading	Description
Life Stage	The stage at which the tree is within its lifecycle (Y = young, SM = semi-mature, EM = early mature, M = mature, OM = over mature)
General Observations	Any relevant observations are recorded, with particular reference to structural and/or physiological condition.
Preliminary Management Recommendations	Recommendations are made where management work is required for reasons of health and safety or sound arboricultural management.
Estimated Remaining Contribution (years)	An estimation of how long the feature will contribute to its surroundings. This is recorded in bands of either <10 years, 10+ years, 20+ years and 40+ years.
Tree Quality Grading	The trees are graded to the categories prescribed within BS5837:2012 (U, A, B & C). Details of this grading system can be found in Appendix 3 .
Root Protection Area (RPA)	Calculated as prescribed in section 4.6 of BS5837:2012, provided as an area (m ²) and a radius from the tree's stem (m).
Note: Those measurements shown in <i>italics</i> have been estimated, usually where access has restricted it being taken.	

2.8 Legislation

2.8.1 Tree Preservation Orders and Conservation Areas

Local Planning Authorities (LPAs) have the power to preserve selected trees and woodlands through the making of TPOs. Similarly, special provision is provided to trees located within CAs which are not the subject of a TPO. The LPAs powers to do this are provided by the following Act of Parliament and its associated regulations:

- Town and Country Planning Act 1990
- Town and Country Planning (Determination of Appeals by Appointed Persons) (Prescribed Classes) (Amendment) (England) Regulations 2008
- Town and Country Planning (Tree Preservation) (England) Regulations 2012

The principal effect of a TPO is to prohibit the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without first obtaining the consent of the relevant LPA.

Where works to trees within a CA are proposed, six weeks notification must first be given to the relevant LPA.

Unauthorized works to trees either protected by a TPO or those that are located within a CA, could result in an unlimited fine for each tree.

A search conducted on the 4th of July 2024 on North Hertfordshire Council's website has confirmed that the main site consisting of the agricultural fields does not sit within a CA. A section of the cable route

measuring approximately 90m in length sits within the Great Wymondley CA at the junction of Graveley Lane, Graveley Road and Priory Road. One feature, G250, sits within this conservation area, therefore no pruning works can be undertaken prior to the submission of a Section 211 notice to the North Hertfordshire Council. This search is provided in **Appendix 4**.

There were no available mapping resources on North Hertfordshire Council's website to check for the presence of any TPOs within the site and along the cable route. A request was sent to North Hertfordshire Council on the 4th of July to check for the presence of any TPOs. A response was received on the 19th of July 2024 with mapping showing that there are no TPOs within the agricultural fields and that none were highlighted on the mapping provided by North Hertfordshire Council situated along the cable route which have the potential to be impacted by the proposed works. This response is shown in **Appendix 4**.

2.8.2 Ancient, Veteran and Notable Trees

Ancient, veteran and Notable trees can be individual trees or groups of trees within wood pastures, historic parkland, hedgerows, orchards, parks, or other areas. They are often found outside ancient woodlands.

Ancient trees

An ancient tree is exceptionally valuable. Attributes can include its: great age, size, condition, biodiversity value as a result of significant wood decay and the habitat created from the ageing process, cultural and heritage value. Very few trees of any species become ancient.

Veteran trees

A veteran tree may not be very old, but it has significant decay features, such as branch death and hollowing. These features contribute to its exceptional biodiversity, cultural and heritage value.

All ancient trees are veteran trees, but not all veteran trees are ancient. The age at which a tree becomes ancient, or veteran will vary by species because each species ages at a different rate.

Notable Trees

A notable tree is usually a mature tree which stand out within the local environment as they are larger when compared to the majority of other trees around them. Notable trees usually do not contain any veteran characteristics.

A search undertaken using the Ancient Tree Inventory (ATI) Map publish by the Woodland Trust did not indicate the presence of recorded Ancient, Veteran or Notable Trees.

2.8.3 Felling Permission

A felling licence is issued by the Forestry Commission as a means of monitoring and controlling tree felling. Felling trees without a licence where one would have been required is an offence.

Not all tree felling projects require a felling licence as exemptions can apply. These can include the location, type of tree work, the volume and diameter of the tree(s) and other permissions which have already been granted. For instance, if less than 5m³ of timber is intended to be felled within one calendar quarter and if the trees intended to be felled are identified on a plan and given full planning permission, a felling licence would not be required. However, if only outline planning permission is granted, felling permission could be required.

3 Tree Survey Results

3.1 Overview

The tree survey identified a total of 356 features comprising of 224 individual trees, 103 groups of trees, 27 hedgerows, and two woodlands which have the potential to be impacted by the development proposals.

Of these tree features, nine were awarded a high-quality A grade, 122 were awarded a moderate-quality B grade, 215 were awarded a low-quality C grade, and 10 were awarded a U grade and some are recommended for removal.

The full Tree Survey Schedule (TSS) is included in **Appendix 5**.

3.2 Ancient, Veteran and Notable Trees

Features T63 and T192 were assessed using the Recognition of Ancient, Veteran and Notable trees (RAVEN) assessment. Feature T63 was classified as a Veteran Tree and T192 as Locally Notable.

4 Arboricultural Impact Assessment

4.1 Overview

The impact that the installation works are likely to have on the existing features has been assessed under the following categories, and the findings are summarised in **Table 3** below.

- Features proposed for complete removal or partial removal due to their position directly in the development works area or in a condition that removal is recommended.
- Retained features that require extra protection due to their proximity to the development works area.
- Retained features which are unaffected by the proposed development works area works.

Table 3: Arboricultural Impact Assessment

Impact	Reason	Tree Quality Assessment Category Grading*				Totals
		A	B	C	U	
Features to be removed or partially removed	Directly inside the development works area or in a condition that removal is recommended	None	None	G41, H96, H207	T64, T73, T74, T82, T202, T209	9
Retained features that are at risk of damage due to proximity to the development works area	RPA/canopy fully or partially within the development works area	T192, T261, T325, T326	T23, T84, T87, T134, T265, G266, T281, T286, T289, G327, G334, G341, T344, T347, T348, T349, T350, G351	T52, H135, T251, T254, T260, G263, G264	None	29
Retained features which are unaffected by the development works	Not within, or likely to be impacted by, works area	T215, G258, T280, G332, G333	T6, T9, T15, T17, T21, T24, T27, T29, T30, T31, T32, T33, T38, T44, T45, T49, T55, T58, T61, G62, T63, T65, T69, T70, T72, T75, T76, T78, T79, T80, T83, T85, W88, G89, G90, G91, T92, T93, T94, T95,	G1, T2, T3, T4, T5, G7, G8, T10, T11, T12, T13, G14, G16, T18, G19, T20, G22, G25, T26, G28, G34, T35, G36, G37, G39, G40, G42, G43, T46, T47, T48, G50, G51, H53, H54, H56, T57, H59, H60, G66, T67, T68, G71, H77, T81, T86, G97, T98, G99, T100, G101, T102, G103, T105, G106, T107, T108, T109, T110, T111, T112, T113, G114, T116, T119, T120, T121,	T140, T142, T154, T156	318

Impact	Reason	Tree Quality Assessment Category Grading*				Totals
		A	B	C	U	
			T104, T115, T117, T118, T122, T123, T124, T128, T130, T132, T133, T136, T147, T150, T151, T153, G159, T163, T164, T165, T166, T167, T171, T200, T211, T214, T255, T262, G268, T269, T271, T273, T275, T277, W279, T284, T287, G294, G296, T300, T303, G304, G307, G310, T315, G316, T317, G318, G319, G320, G321, G323, G324, G328, G329, G331, G335, G336, G337, G339, G340, G342, G352, G355	T125, T126, T127, T129, T137, T138, T139, T141, T143, T144, T145, T146, T148, T149, T152, G155, T157, T158, T160, T161, H162, T168, T169, T170, G172, G173, G174, G175, G176, T177, G178, G179, G180, G181, G182, H183, T184, T185, T186, T187, T188, T189, T190, T191, H193, T194, T105, T196, T197, T198, T199, G201, G203, G204, T205, T206, H208, T210, H212, T213, T216, G217, T218, T219, T220, T221, T222, T223, T224, T225, T226, T227, T228, T229, T230, T231, T232, T233, T234, T235, T236, T237, T238, T239, T240, T241, T242, T243, T244, T245, T246, T247, T248, T249, G250, H252, T253, G256, G257, G259, H267, H270, H272, G274, H276, H278, H282, H283, G285, T288, T290, T291, T292, G293, G295, G297, G298, T299, T301, T302, G305, H306, H308, H309, G311, G312, G313, G314, G322, H330, G338, G343, G345, G346, H353, G354		
Totals		9	122	215	10	356

4.2 Tree removal

The development proposals will require the partial removal of features G41, H96 and H207. These have all been categorised as low-quality C grade features.

- Feature G41, which is composed of Elder and Hawthorn, will require the removal of approximately 9.2m², amounting to 13.4% of its total RPA due to the development of an internal access track.
- Feature H96, which is composed of Blackthorn, Hawthorn and Field Maple, will require the removal of approximately 7.6m², amounting to 4.9% of its total RPA due to the development of an internal access track.

- Feature H207, which is composed of Blackthorn, Hawthorn, Hazel and Walnut, will require the removal of approximately 14.9m², amounting to 1.7% of its total RPA due to the development of an internal access track.

The partial removals listed above are all within tolerable limits of RPA loss and the tree loss will be mitigated against by remedial tree planting. It is estimated that the amount of removal from these features amounts to a total of approximately 30 individual trees.

The grading and subsequent recommendation to remove the 10 category U features was determined by the condition of the trees, which is outlined below:

- Feature T64 is an over mature Oak tree which is dying and contains large amounts of deadwood in its crown.
- Feature T73 is an over mature Willow tree which is dying and contains large amounts of deadwood within its crown.
- Feature T74 is an over mature Willow which is dead.
- Feature T82 was an over-mature Oak tree which is dead.
- Feature T140 is a semi-mature Oak tree which is situated on the motorway embankment and therefore access was restricted. The tree was assessed as being in an acute stage of decline and dying. As this is outside the developers control it will not be removed unless undertaken by the relevant landowner.
- Feature T142 is a semi-mature Oak tree which is situated on the motorway embankment and therefore access was restricted. The tree was assessed as being in an acute stage of decline. As this is outside the developers control it will not be removed unless undertaken by the relevant landowner.
- Feature T154 is a semi-mature Oak tree which is situated on the motorway embankment and therefore access was restricted. The tree was assessed as being in an acute stage of decline and dying. As this is outside the developers control it will not be removed unless undertaken by the relevant landowner.
- Feature T156 is a semi-mature Oak tree which is situated on the motorway embankment and therefore access was restricted. The tree was assessed as being in an acute stage of decline and dying. As this is outside the developers control it will not be removed unless undertaken by the relevant landowner.
- Feature T202 is a mature Oak tree which contained a hollowed stem, major cavities and cracks and missing bark throughout the stem and crown. The tree was assessed as being in an acute stage of decline and dying.
- Feature T209 is an early-mature Field Maple which was assessed as being in decline and dying.

Features T140, T142, T154 and T156 pose no risk to the development proposals as they are not within target range of the development infrastructure. Although their removal is not required in relation to this development, as these features are on third party land, permission must be obtained prior to works to them taking place.

Features T64, T73, T74, T82, T202 and T209 pose a moderate risk to the development proposals as they are within target range of the 2.1m deer/ stock fencing. Additionally, features T64, T73 and T74 pose a moderate risk to pedestrians as they are within target range of the permissive path. Therefore, their removal is recommended.

Of these 10 Category U features, it is only necessary to remove six for the purpose of the development, due to their current poor condition and due to anticipated future failures. The removals are being undertaken as part of good arboricultural management, reducing the risks posed to persons and property.

4.3 Remedial Tree Planting

Extensive woodland, tree and hedgerow planting is proposed as part of the landscape proposals for the project. This will more than exceed 1:1 replacement. Details of these proposals are shown in the Axis drawing titled Soft Landscape Proposals (ref: 3004-01-020 DoC12 Soft Landscape Proposals.pdf).

4.4 Impacts on retained trees

The development proposals and associated works will cause impacts to trees, groups, and hedgerows of high quality A grade (T192, T261, T325 and T326), moderate quality B grade (T23, T84, T87, T134, T265, G266, T281, T286, T289, G327, G334, G341, T344, T347, T348, T349, T350 and G351), and low quality C grade (T52, H135, T251, T254, T260, G263 and G264) arboricultural features, as listed in **Table 3**.

The infrastructure, as detailed in **Section 2.4**, will cause incursions within the RPA of the features detailed above. Areas of these infrastructure elements sit adjacent to some arboricultural features, which therefore have the potential to pose a risk of accidental damage being caused during the development.

The potential for damage occurring is considered minor, and a specific work schedule and methodology has been implemented as part of this report for the safe retention of these features so they are retained without adverse effects to the health or structural condition, as discussed further in **Section 5**.

5 Method Statement

5.1 Overview

The contractors working for / on behalf of AGR will be following the precautions set out below.

5.2 Facilitation Tree Work

5.2.1 Tree Removals

In order to facilitate the proposals, the partial removals of features G41, H96 and H207 will be required, as detailed in **Section 4.2**.

Additionally, 10 Category U trees (T64, T73, T74, T82, T202 and T209) will be removed due to their condition and future failure risks they pose.

Features T140, T142, T154 and T156 pose no risk to the proposed development, but due to their condition should be removed as part of sound arboricultural management. These features are located on third party land, and therefore permission must be sought before removals can be undertaken.

5.2.2 Tree Pruning

Pruning works may be required on feature T134 as the 2.1m deer/ stock fencing will incur within its RPA and crown spread, as this feature has been recorded as having a minimum crown clearance of 2m. The maximum canopy may be pruned by will be 0.25m to allow for a reasonable clearance over the deer/ stock fencing.

Furthermore, root pruning works is likely to be required to facilitate the installation of the 2.1m deer/stock fencing and open cut trenching along the cable route. This is further discussed in **Section 5.7**.

5.2.3 Standard of tree work

All tree works operations will be carried out in accordance with BS 3998:2010 'Recommendations for Tree Work'; current arboricultural industry guidelines and best practice; and all relevant Health & Safety standards. Tree work is a specialist task that requires operatives to be appropriately qualified, skilled, and adequately insured. Guidance on selecting an appropriate contractor can be obtained from the Arboricultural Association, who also maintains a directory of Approved Contractors. The Arboricultural Association can be contacted on 01242 522152 or via their website <http://www.trees.org.uk>.

5.3 Felling Permission

It is likely that a felling licence will be required if the trees identified for removal on the TPP (**Appendix 2**) are removed ahead of North Hertfordshire Council approving this report and subsequently discharging Condition 21 of the associated planning permission. However, a felling licence will not be required if the

felling is undertaken after North Hertfordshire Council have approved this report and subsequently discharged Condition 21.

Six U grade trees will be removed for the facilitation of the development (T64, T73, T74, T82, T202 and T209) and due to their categorisation as being unsuitable for retention due to their condition. Furthermore, four additional U grade features (T140, T142, T154, T156) which do not pose a risk to the development but have also been categorised as unsuitable for retention should be removed for sound arboricultural management, as described in **Section 4.2**. The combined volume of these features is considered to exceed 5m³ of timber, therefore their removal shall not be undertaken without a felling licence or before this AMS is approved by North Hertfordshire Council.

5.4 Working methods to be adopted

As detailed in **Table 3**, 29 arboricultural features within the site will have works undertaken within their RPAs. The following precautions will be taken where works are proposed within the RPA or beneath the canopy of trees:

1. No excavations will be carried out within 1m of the base of any tree.
2. In areas where there is existing hard surfacing this will be used as the default surface and will act as adequate ground protection for the passage of vehicles and pedestrians throughout the works.
3. It's envisaged that all works can be done from the hard surfacing. However, if the works deviate away from this hard surfacing, temporary proprietary surfacing, such as TuffTrak which is flexible and conforms to the existing surface (and will therefore not require excavation or infill to level out surfaces), will be used for all vehicle and pedestrian movements within the RPAs, to prevent compaction of the ground.
4. Any excavations undertaken within the RPAs of trees may require root pruning. If any roots above 25mm are exposed, these shall be retained, and the appointed arboricultural consultant informed.
5. Use of machinery with booms will have a banksman to prevent accidental contact of the boom with the retained trees.
6. As the roots of the trees extend well beyond the limits of the RPAs, no fuels or chemicals should be poured or stored within an area equal to the height of the tree.
7. No materials or equipment should be stored within the RPAs of any trees.
8. Nothing will be attached to the trees.

5.5 Barriers

The development design includes the installation of a 2.1m high deer/ stock fence to be located around the solar arrays. Therefore, this will act as the majority of tree protection fencing and it will be installed

before other construction works commence. There are also sections of additional tree protection fencing which are required around features G34, T35, G36, G37, T38, G39, G40, G41, G42, G43, T44, T45, T46, T47, T48, T49, G50, G51, T58, H59, H96, T134, H135, T136, T137, T206, H207, H212 and T219.

In line with Section 6.2.2 of BS 5837:2012, which requires that the tree protection barriers be fit for the purpose of excluding construction activity and that they provide adequate protection to the trees, they will consist of 2m tall welded mesh panel. Each panel will be secured to its neighbour with a minimum of 2 anti-tamper couplers secured so that they can only be undone from inside the Construction Exclusion Zone (CEZ), as further described in **Section 5.6**. The panels will be further supported by stabilizer struts which will be pinned to the ground. An example of this type of barrier is contained in **Appendix 6**. The location of the tree protection barriers is provided on the TPP contained in **Appendix 2**. Their precise location and construction will be agreed on site between the appointed arboricultural consultant and North Hertfordshire Council before any site works commence.

Inside the CEZ the following prohibitions will be complied with:

- No excavations, including by hand; unless approved by North Hertfordshire Council;
- No storage of machinery;
- No storage or handling of building materials, fuel, chemicals, or spoil;
- No fires;
- No vehicular access;
- No pedestrian access; unless approved by North Hertfordshire Council;
- No alteration, increase or decrease, to existing ground levels; unless approved by North Hertfordshire Council;
- No excavation or installation of services; unless approved by North Hertfordshire Council.

In order to ensure that the CEZ remains intact, the tree protection barriers will not be moved or temporarily dismantled except in the situations previously mentioned.

To enable site operatives to appreciate the purpose of the protective fencing and reduce the risk of operatives attempting to move them, all-weather notices will be erected on the barriers similar to the example in **Appendix 7**.

5.6 Construction Exclusion Zone (CEZ)

The CEZ is defined around the retained trees by the 2.1m high/ stock deer fencing and the additional areas shown with a brown line highlighting the tree protection fencing to be installed as per BS5837:2012. The CEZ is shown on the TPP (**Appendix 2**). The CEZ is positioned to protect both the crowns and the RPA of the retained trees. As the deer/ stock fencing will be a permanent feature and will act as the majority of tree protection fencing, this will, along with the temporary tree protection fencing, be installed prior to

any other works being undertaken as part of the development to ensure that the CEZ is fully operational before any works begin. The temporary tree protection fencing will only be removed after all development works have been completed.

Further guidance on RPA's is contained in **Appendix 8**.

5.7 Excavations within RPAs

In order to facilitate the development proposals, there will be excavations within the RPAs of high quality A grade features (T192, T261, T325, T326), moderate quality B grade features (T23, T84, T87, T134, T265, G266, T281, T286, T289, G327, G334, G341, T344, T347, T348, T349, T350, G351), and low quality C grade features (T52, H135, T251, T254, T260, G263, G264).

Where any excavations are to be undertaken within the RPAs of any arboricultural feature on site, it is feasible that roots may be encountered. In these situations, roots up to 25mm may be pruned back using a pruning saw or secateurs, leaving a clean-cut surface and a lateral root where possible.

If any roots above 25mm are exposed, the appointed arboricultural consultant shall be informed and they will assess the situation to determine the future course of action. The exposed roots shall be covered with damp hessian cloth in the summer months and dry hessian cloth in the winter months so as to avoid desiccation.

Once the root structure has been assessed by the arboricultural consultant, and a suitable course of action agreed, then works may proceed.

Backfill should, where possible, contain the original non-construction material and should also include the placement of an inert granular material mixed with topsoil or sharp sand (not builders sand) around the roots. This will allow the soil to be compacted for resurfacing without causing damage to the root system.

5.7.1 New Deer/ Stock Fencing

New deer/ stock fencing measuring 2.1m high will be installed surrounding the solar arrays and this will cause incursions into the RPAs of features T23, T52, T84, T87, T134, H135 and T192. The installation works shall be conducted by manually digging postholes in order to minimise the impacts and potential for damage to occur. If roots are encountered during the digging works, they may be pruned back if they are under 25mm, leaving a lateral shoot where possible. If roots exceeding 25mm are encountered, they shall be retained. The posthole excavation shall move adjacent to the root if possible, or be backfilled with the original material, and a new location for the posthole shall be excavated.

The postholes shall be lined with a protective root barrier, such as a pliable but impervious polythene sheet, and concrete shall be poured manually into the posthole avoiding any spillage onto the ground within the RPA. All materials and equipment shall be moved into and out of the RPA manually and

materials shall not be stored within the RPA. No excavations for the purposes of installing posts shall occur within 1m to the stem of any arboricultural feature, and nothing shall be attached to any arboricultural feature.

5.7.2 Trench for Cable Route

An open cut trench measuring 300mm width will be required to be excavated along the cable route. The depth of the trench is currently unknown as ADAS has been informed that no Independent Connection Provider (ICP) has been appointed at the time of writing this report.

The excavation will be undertaken within the carriageway primarily using a mechanical excavator to remove the existing hard standing and soil layers to obtain the sufficient depth.

Where the excavation along the cable route occurs within the RPAs of arboricultural features T192, T251, T254, T260, T261, G263, G264, T265, G266, T281, T286, T289, T325, T326, G327, G334, G341, T344, T347, T348, T349, T350 and G351, this shall be undertaken using the method of a mechanical excavator conducting shallow scrapes of up to 150mm into the soil layers. The shallow scrapes shall only be conducted after a manual test of the soil layer has been undertaken, using a drainage shovel to check for the presence of roots by spiking into the 150mm layer along the section of route to be excavated.

This will be undertaken to minimise the extent of harm to the root systems during excavations using an open cut trenching technique, and to prevent harm such as root fracturing from mechanical excavation.

Should extensive rooting be established during the manual use of the drainage shovel, therefore making the continued use of a mechanical excavator no longer a viable option, the excavation shall proceed with the preferred use of a vacuum excavator.

Roots smaller than 25mm may be pruned back to the trench edges using a proprietary cutting tool such as bypass secateurs, leaving a clean cut and lateral root where possible. Should roots above 25mm be exposed, works may only proceed after consultation with the appointed arboricultural consultant and once a suitable course of action is agreed upon.

In the event structural roots that cannot be pruned without causing the tree to become unsafe are encountered, the following special construction measures will be followed:

- The roots will be carefully exposed using hand tools.
- The exposed roots will be wrapped with hessian sacking, or horticultural fleece, to protect from desiccation and abrasion damage from continued excavation.
- The retained roots shall be incorporated into the backfilled area which should include the placement of an inert granular material mixed with topsoil or sharp sand (not builders' sand)

around the roots. This will allow the soil to be compacted without damage to the roots, securing a locally aerated zone enabling the roots to survive in the longer term.

- Any hessian cloth used to protect retained roots should be removed prior to any backfilling of excavations.

Feature G356 will have the cable route travel through its RPA, however this shall be undertaken by Horizontal Directional Drilling (HDD) conducted at a depth which will cause minimal to no impacts on the root system. The launch and reception pits will be located outside of the RPAs.

5.8 Site Monitoring

Periodic site monitoring will be undertaken to check the temporary tree protection fencing is in place at the agreed locations and that there hasn't been a change to the design or working methods. The site monitoring will also check that no work is being undertaken or materials are being stored within the CEZ. It is recommended that site monitoring will be undertaken once a month for the duration of the works.

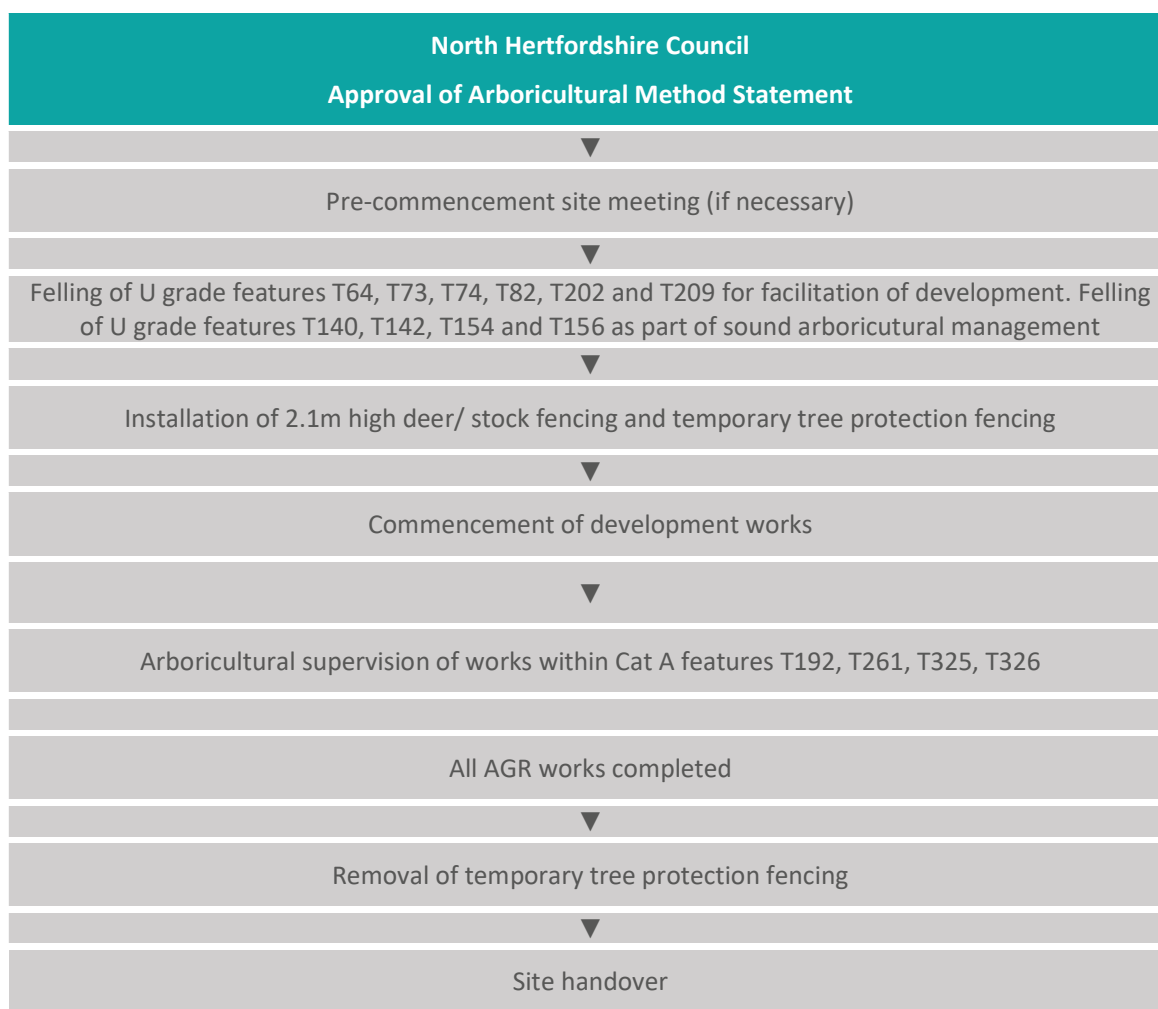
6 Arboricultural Input.

6.1 Arboricultural Supervision

Arboricultural supervision will be required as there are excavation works planned to be undertaken within the RPAs of arboricultural feature on site, as detailed in **Table 3** and **Section 5.7**. The arboricultural supervision will be required for excavations undertaken within the RPAs of high-quality A grade features T192, T261, T325, T326. The excavations within the RPAs of moderate quality B grade features and low quality C grade features will be undertaken following the methodology of works as detailed within this report, and the appointed arboricultural consultant will be informed of the intended works and kept informed with the progress, so on-going arboricultural support can be provided as required.

6.2 Sequence of Events

The following Arboricultural Sequence of Events shall be referenced during the works process:



6.3 Key Contacts during Development

A list of key contacts relevant to this site that may be required throughout the duration of the works has been included in **Appendix 9**.

7 Conclusion

ADAS has identified 356 tree features within the site known as Priory Farm Solar Array. The trees have been recorded in the Tree Survey Schedule and plotted on the Tree Protection Plan, which form part of this report.

For the facilitation of the development, it is required that partial removal of low-quality C grade features G41, H96 and H207 are undertaken. To mitigate against this tree loss, remedial tree planting will be undertaken within the site as part of the proposed landscape works, as discussed in **Section 4.3**.

Additionally, there are six U grade trees (T64, T73, T74, T82, T202 and T209) which will be removed for the facilitation of the development and a further four U grade features (T140, T142, T154 and T156) which will be removed as part of sound arboricultural management due to their current poor condition and anticipated future failures. The removals would be undertaken to reduce the risks posed to persons and property. Therefore, the removal of these features should not be seen as a material consideration and no remedial planting is required.

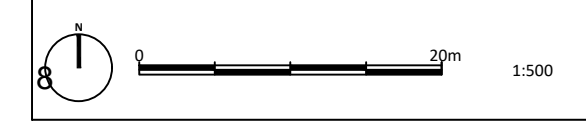
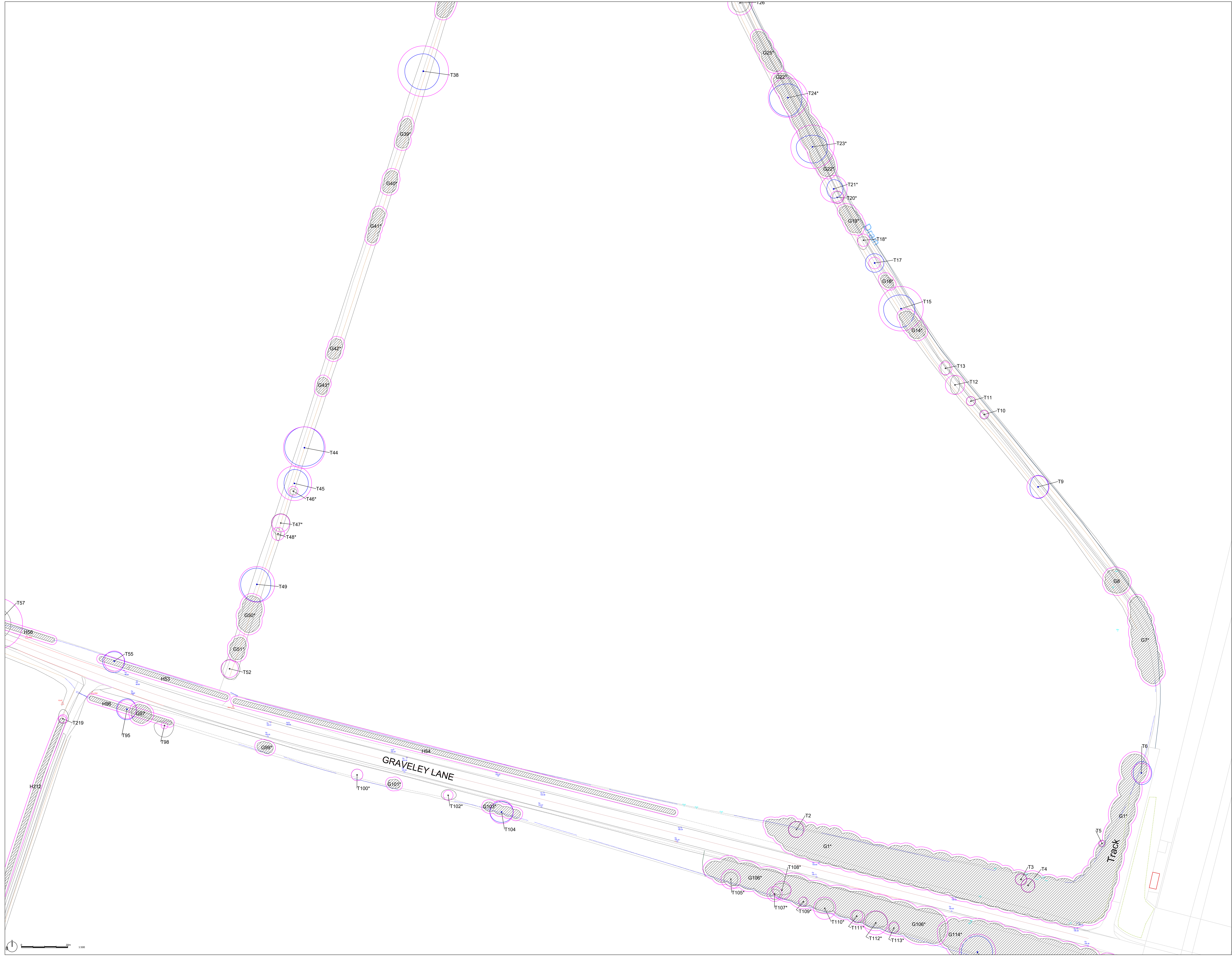
The site's deer/stock fencing, combined with additional temporary tree protection fencing will ensure that all remaining trees are suitably protected from the development works.

The excavation works within the RPAs of high quality A grade features (T192, T261, T325 and T326) will require arboricultural supervision, and the excavations within the RPAs of moderate quality B grade features and low quality C grade features will be undertaken following the methodology contained within this report and assessed during arboricultural site monitoring.

ADAS is satisfied that if the recommendations contained within this Arboricultural Method Statement are followed, North Hertfordshire Council can discharge Condition 21 , and the development works can take place with minimal impacts being caused to the retained trees.

Appendix 1: Tree Constraints Plan

See following page.



LEGEND
TREE CATEGORIES - NOTE: Quality class description derived from BS5837:2012

•

Category A

Trees / Groups of high quality: with an estimated remaining life expectancy of at least 40 years.

•

Category B

Trees / Groups of moderate quality: with an estimated remaining life expectancy of at least 20 years.

•

Category C

Trees / Groups of low quality: with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

•

Category U

Trees / Groups: in such a condition that they cannot realistically be retained as living trees in the context of current land use for longer than 10 years.

○

Root Protection Area (RPA)

—

Indicative Position of Cable Route

The cable route has been added by ADAS to the drawing provided by the client as no CAD file was available detailing the cable route. ADAS have not verified the accuracy of the cable route, therefore its position and all arboricultural features located along it are indicative.

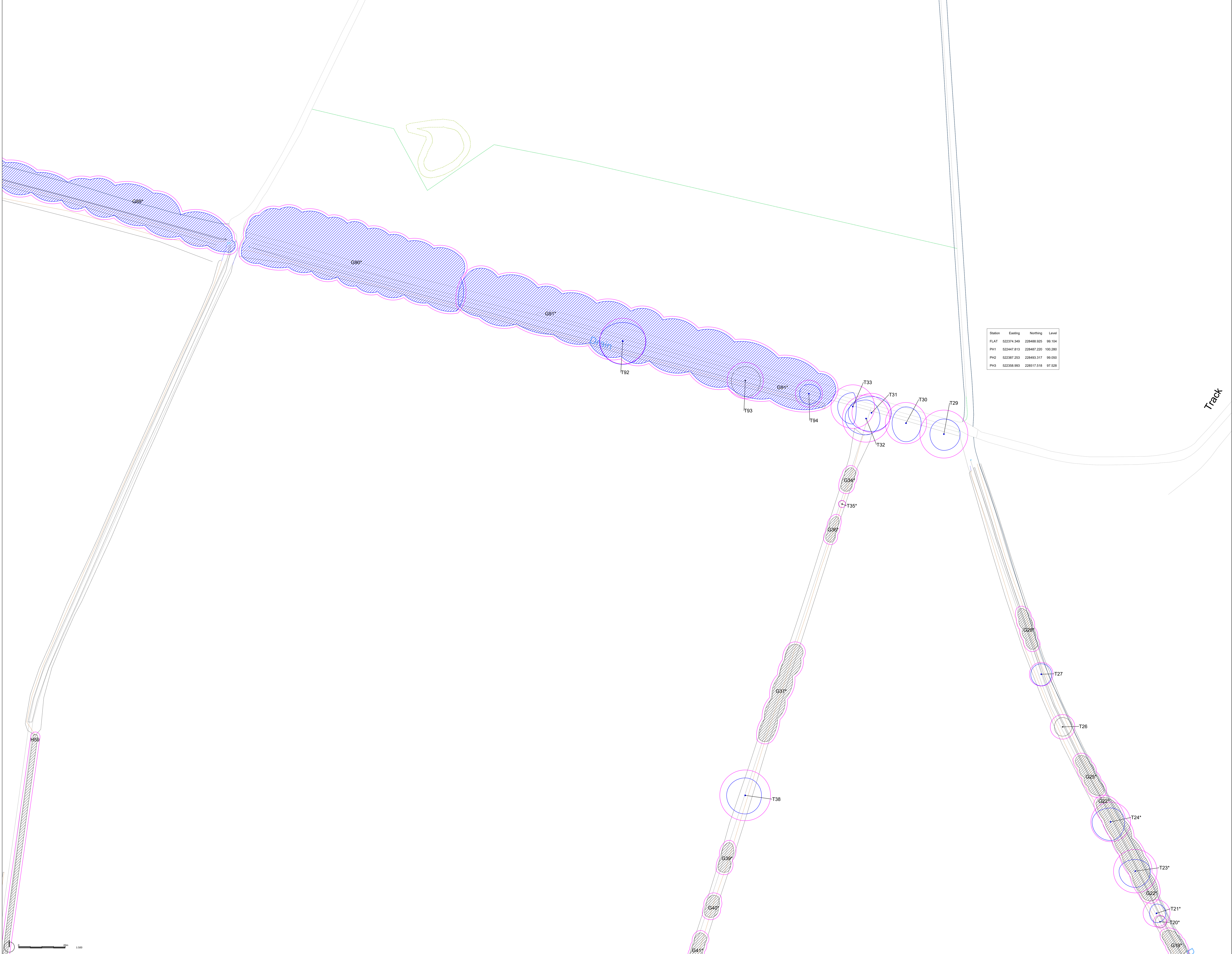
T#* Trees not included in original site survey and therefore positions are indicative only.

Based on Terra Measurement drawing 'Topographical Survey', (4162_AGR_Group_Graveley_Lane_Great_Wymondley.dwg) and based upon OS MasterMap (OS_MasterMap_705081_016114_OS_Mastermap.dwg). Please see originals for details.

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First Issue: July 2024
Rev: Issue Details: Date:
Client: AXIS
Project: Wymondley Solar Farm
Drawing Title: Tree Constraints Plan (Sheet 1)
Drawing No: ADAS_1052454_Axis_Wymondley_TCP
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Drawn by: AVH Date: 03/07/2024
Checked by: IW Date: 03/07/2024
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Email: ADAS@adas.co.uk



Station	Easting	Northing	Level
FLAT	522374.340	228488.625	99.104
PH1	522447.813	228487.220	100.280
PH2	522387.253	228493.317	99.050
PH3	522358.993	228517.518	97.528

LEGEND

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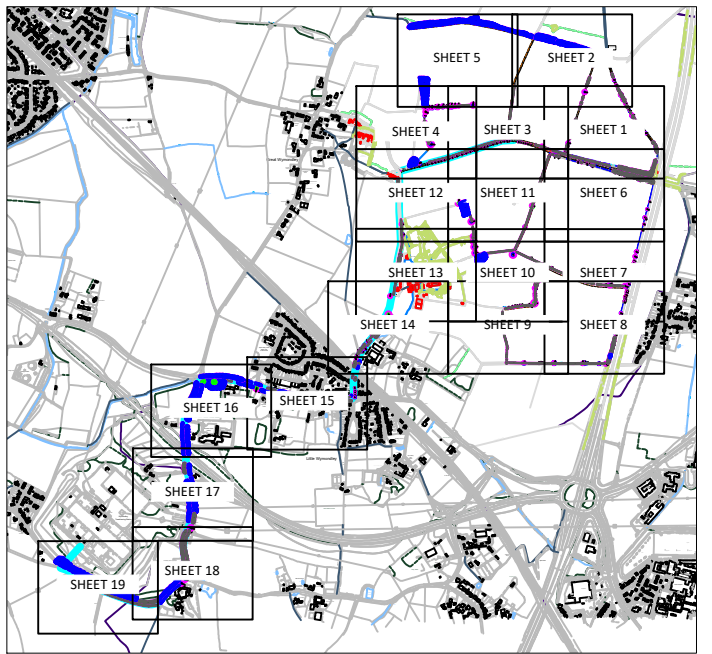
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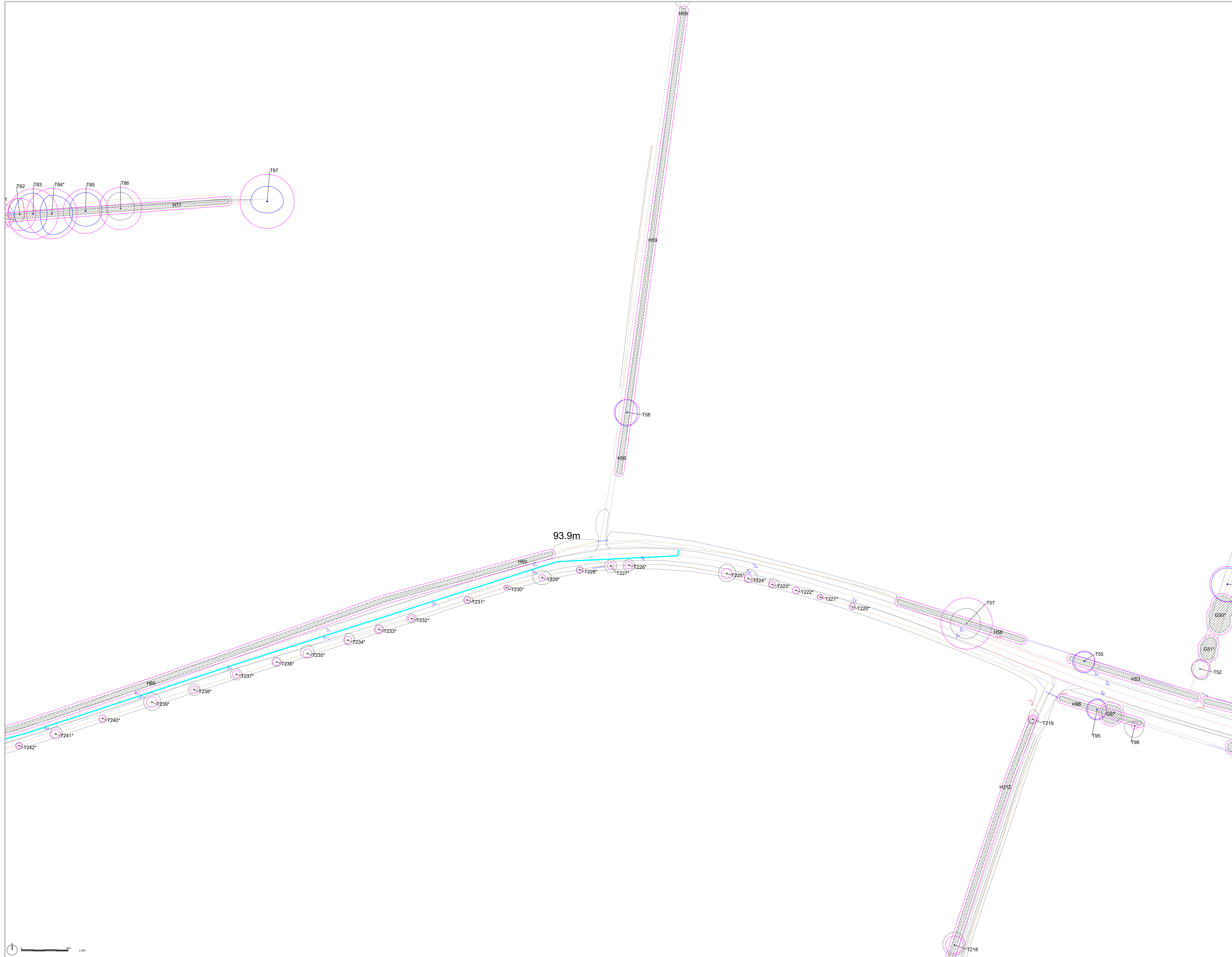
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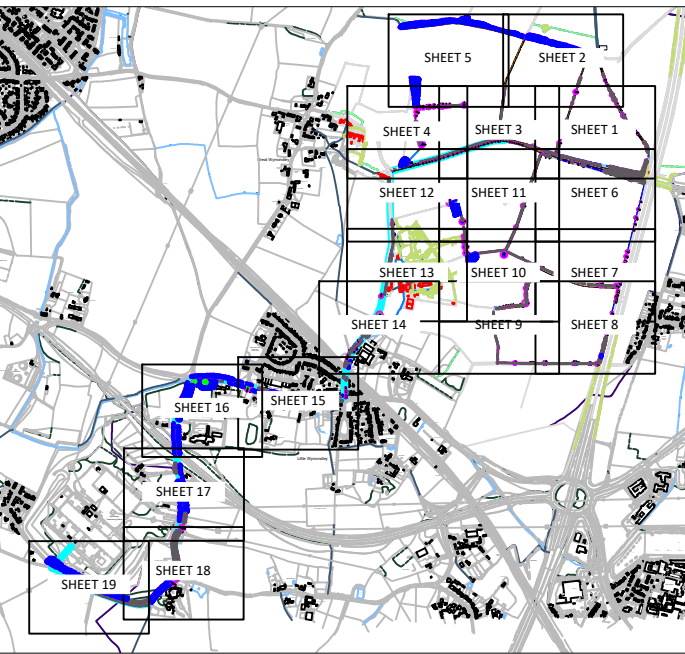
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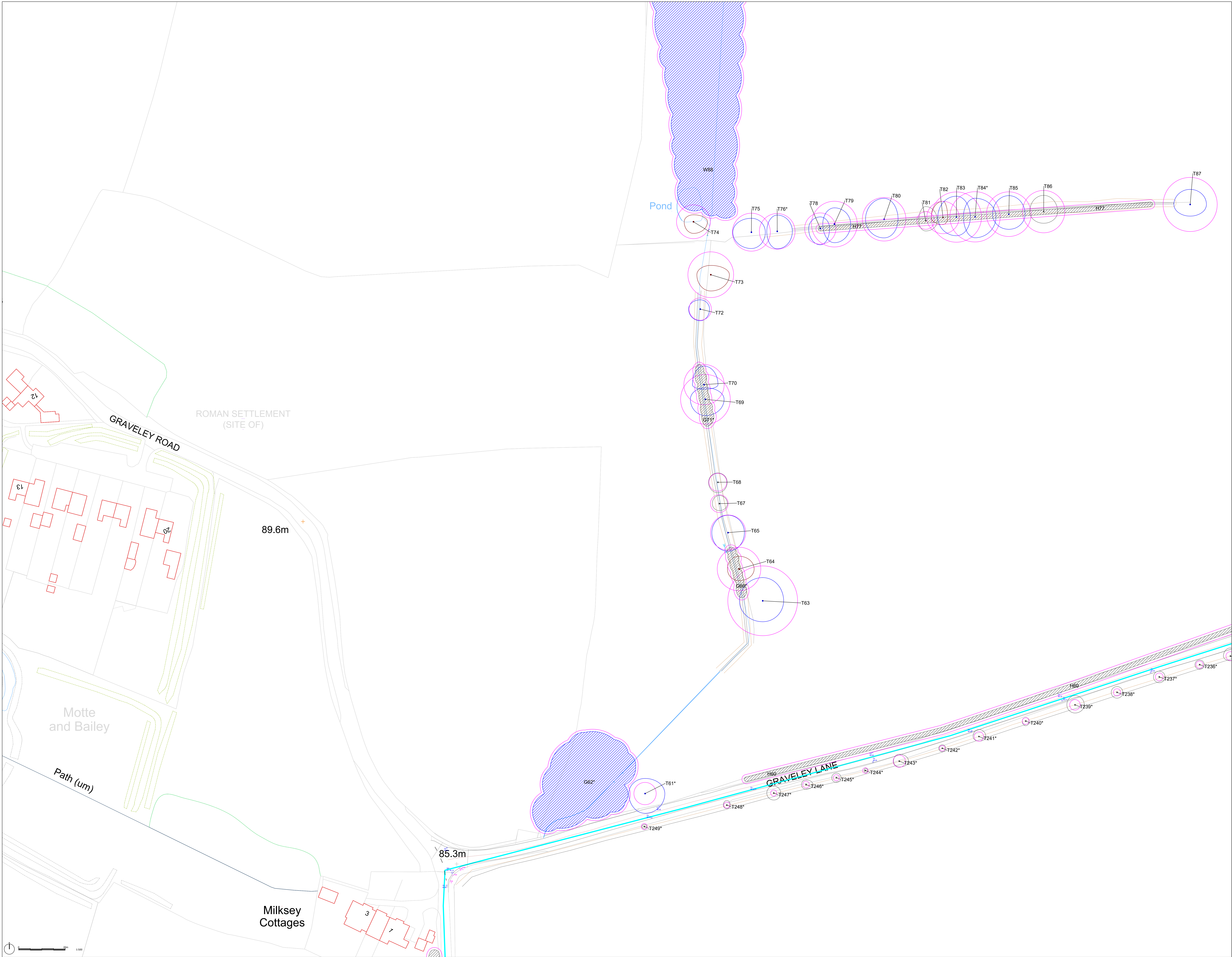
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TREE CATEGORIES - NOTE: Quality class description derived from BS5837:2012

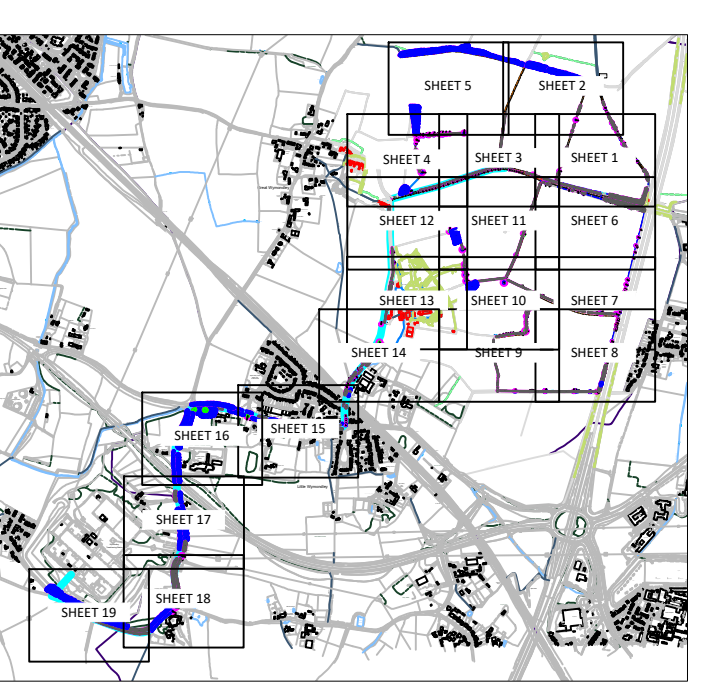
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