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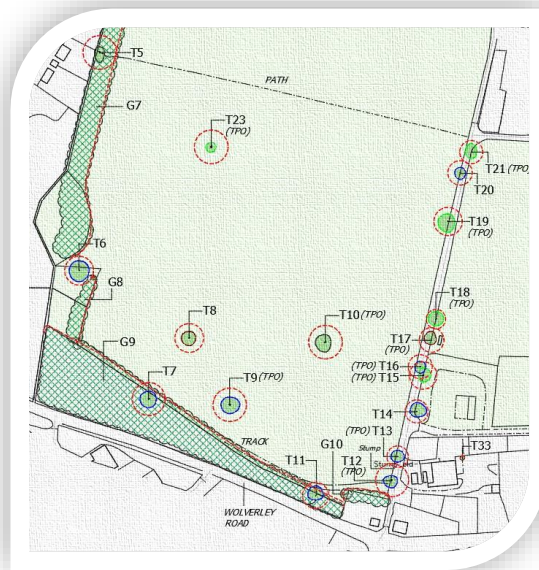
# ES VOLUME 2

## Technical Appendices

C - Arboriculture



BS 5837:20 12  
PRE-DEVELOPMENT TREE CONDITION SURVEY



RELATING TO  
**LAND AT LEA CASTLE FARM, WOLVERLEY**

PREPARED FOR:  
**KEDD LTD**

REFERENCE:  
**TS71**

May 2019

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## **1.1 Introduction**

1.1.1 access2trees Limited offers various services to meet your specific needs from tree surveying to tree surgery, as well as site clearance, stump grinding and replanting. We are NPTC (National Proficiency Tests Council) qualified and hold the Lantra Professional Tree Inspectors Certificate.

## **1.2 Instructions to Brief**

1.2.1 access2trees have been instructed by Kedd Limited on behalf of their client, NRS Aggregates Ltd, to undertake a Tree Survey on land at Lea Castle Farm in Wolverley, Worcestershire.

1.2.2 The site is located within the administrative area of the Wyre Forest District Council.

1.2.3 The survey is in accordance with requirements set out in British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction: Recommendations'.

1.2.4 The BS 5837:2012 survey includes all individual trees and tree groups within the site boundary, along with those present at the edges of the site, which may be adversely affected by the development proposals.

## **1.3 Limitations**

1.3.1 The findings and recommendations contained within this report are, assuming its recommendations are observed, valid for a period of twelve months from the date of survey. Trees are living organisms subject to change and best practice dictates they are inspected on an annual basis for reasons of safety, although longer inspection timescales may be given in the report where it is deemed necessary.

- 1.3.2 This survey should be regarded as an initial appraisal and observations, assessments or recommendations relating to foundation design, material specification or project design and methods of working are beyond the scope of the study.
- 1.3.3 Tree rooting characteristics and soils are both enormously variable as are their interactions. This makes attempts to quantify subsidence risk assessment impossible. No effort has been made to assess subsidence risk potential nor should any be construed. Obvious structural damage may be noted in the text but any observations of this nature will be cursory. Further reports from a suitably qualified surveyor or structural engineer will be required.
- 1.3.4 Whilst every effort has been made to detect defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. Extreme climatic conditions can cause damage to even apparently healthy trees. All recommendations are given in the context of the site's current usage; any change will necessitate a re-inspection.

## **1.4 Site Visit**

- 1.4.1 A site visit to carry out the BS 5837 survey was undertaken by James Plaskett and Amy Plaskett on 20<sup>th</sup> May 2019 to review the current condition of the trees present.

## **1.5 Site Description**

- 1.5.1 The site is located to the east of the village of Wolverley, which is situated to the north of the town of Kidderminster, in Worcestershire.
- 1.5.2 The site is situated to the north of the B4189 Wolverley Road, and to the west of the A449 Wolverhampton Road. It is accessed via a track which leads into the site from 'South Lodge', off the Wolverley Road.
- 1.5.3 The site is located on former estate land associated with Lea Castle, which was demolished in the 1940s. The predominant use of the land now is for arable farmland, with some pasture land to the south for grazing horses.

- 1.5.4 Some of the parkland trees associated with the former Lea Castle estate remain on site, and are located within the large arable field at the west of the site. Others are present as a tree-lined avenue which runs northwards from South Lodge, which would have provided the formal entrance to Lea Castle, which was located further to the north.
- 1.5.5 The trees present on site are predominantly located at the north western, western and south western boundaries of the site, in the form of established woodland.
- 1.5.6 Further east, the sites boundaries are defined by mature hedgerow in combination with a brick boundary wall along the A449 road to the east. This wall also forms the sites southern boundary, along the Wolverley Road.

## 1.6 Methodology

- 1.6.1 The following survey is based upon the findings of the visit and the conditions found on the day. This survey provides quantitative data relating to tree species, height, stem, diameter, height and direction of first significant branch, crown spread, age class and a brief qualitative assessment on tree condition and future potential.
- 1.6.2 With reference to BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations', an assessment of the tree resource has been undertaken following guidance in BS 5837:2012 and a calculation has been made for the theoretical Root Protection Areas (RPA) as noted in the survey schedule in metres.
- 1.6.3 The location of the trees surveyed are illustrated on the Tree Survey Plan which is included in Appendix 2 of this report.
- 1.6.4 Information recorded in the BS 5837 survey includes the following:
- **Sequential Survey Reference Number** – Recorded on the survey plan. Individual trees recorded have been given the prefix 'T' followed 1,2,3 etc. Tree groups have been given the prefix 'G' followed by 1,2,3 etc. Hedgerows have been given the prefix 'H' followed by 1,2,3 etc.
  - **Species** – The species identification is based on visual observations and the common English name is listed first, followed by the botanical name.

- **Tree Heights** – These are estimated in metres.
- **Stem Diameters** – Measured by and recorded in millimetres to the nearest 10mm. In the case of groups of trees the maximum diameter is recorded.
- **Crown Radius** – Recorded in metres along each cardinal point. In the case of groups the maximum peripheral spread is recorded.
- **Life Stage** – Recorded as prescribed in BS 5837:2012 (e.g Young (Y), Semi Mature (SM), Early Mature (EM), Mature (M), Over Mature (OM), Veteran (V)).
- **Condition** – Individual assessment of Crown, Stem & Basal area condition is made and an overall assessment of Physiological Condition (e.g. the presence of any decay and physical defect). In the case of groups and/or woodlands the condition stated will be typical of the feature.
- **Life Expectancy** – estimated; and recorded as follows: Less than 10 years, 10-20 years, 20-40 years, more than 40 years.
- **Retention Category** – given as follows and corresponds with Table 1 of BS 5837:2012.
  - A- **Trees of high quality and value**, including visual amenity value (sub categories 1,2,3). It is usual for such trees to be retained unless the planning merits of a particular scheme or layout over-ride.
  - B- **Trees of moderate quality and value**, including visual amenity value (sub categories 1,2,3). Such trees should be considered for retention.
  - C- **Trees of low quality and value**, including visual amenity value (sub categories 1,2,3).
  - U- Trees 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.

Sub categories – trees in categories A to C will qualify under one or more of three sub categories (1,2,3). Sub categories 1, 2 & 3 are intended to reflect Arboricultural, Landscape Qualities, and Cultural Values respectively.

The tree survey schedule will list which sub category applies. It is intended that each sub category has equal weight such that, for example, an A1 tree has the same retention priority as an A2 tree. It is possible for a tree to qualify under more than one criterion.

- **Root Protection Area (RPA)** – This is calculated based on the average measure of the trees stem diameter in mm. In respect of all Category A, B and C trees which are proposed to be retained, the RPA has been calculated and is given in the Tree Survey Schedule, and would also be illustrated in the Tree Protection

drawing. The figure given represents the radial distance, from the trees trunk, at which the barriers should be erected. The RPA is calculated in accordance with section 4.6 of BS 5837:2012.

For single stemmed trees, the RPA should be calculated as an area equivalent to a circle with the radius 12 times the stem diameter. For trees with more than one stem, one of the two calculation methods below should be used. The calculated RPA for each tree should be capped at 707m<sup>2</sup>.

- (a) For trees with two to five stems, the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{stem diameter 1})^2 + (\text{stem diameter 2})^2 + (\text{stem diameter 5})^2}$$

- (b) For trees with more than five stems, the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$$

The RPA for each tree will initially be plotted as a circle on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area will be produced. Modifications to the shape of the RPA will reflect a soundly based arboricultural assessment of likely root distribution.

Any deviation in the RPA from the original circular plot will take account of the following factors whilst still providing adequate protection for the root system:

- a) The morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground apparatus);
- b) Topography and drainage;
- c) The soil type and structure;
- d) The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

1.6.5 The trees were initially inspected from the ground using 'Visual Tree Assessment' techniques; this is the method generally adopted and is appropriate in this instance. All trees and groups of trees inspected are listed in the Tree Survey Schedule (included in Appendix 1 of this report), and are numbered on the plans



which accompany this report (included in Appendix 2 of this report).

- 1.6.6 Trees which have been assessed as exhibiting similar characteristics have been defined as a tree group in accordance with recommendations included in BS5837:2012 which defines tree groups as, “Trees that form cohesive arboricultural features either aerodynamically, visually or culturally.” Where this is the case, qualities considered to be representative of the group (e.g. the average stem diameter, average height etc.) have been recorded. Any marked differences noted within a grouped area (e.g. qualities that are not indicative of the group as a whole, or where individual trees present within a group may pose a specific hazard), have been highlighted in the appropriate section of the schedule (under relevant group reference) to ensure that all relevant information is recorded.
- 1.6.7 Individual trees present within a group which are worthy of note or comment have been highlighted in the Tree Survey Schedule, to ensure that all aspects of condition are covered, even if these do not relate to all trees present within the wider defined group.
- 1.6.8 Tree groups have been depicted by green hatch and/or noted on the drawings as required.

## **1.7 Observations and Comments**

- 1.7.1 In total 33 No. individual trees, 14 No. tree groups and 4 No. hedgerows were recorded as part of the survey. Of these, 6 No. individual trees have been assessed as being Category A trees (T15, T18, T19, T21, T23, T26), 13 No. as Category B trees (T2, T3, T4, T6, T7, T9, T11, T12, T13, T14, T16, T20, T27), 12 No. as Category C trees (T1, T5, T10, T22, T24, T25, T29, T30, T31, T32, T33, T34), and 2 No. as Category U trees (T8, T17). 3 No. tree groups have been assessed as being Category B tree groups (G2, G3, G6), and the rest were assessed as being Category C (G1, G4, G5, G7, G8, G9, G10, G11, G12, G13).
- 1.7.2 Principal tree species recorded included Cedar, Oak, Wellingtonia, Sycamore, Lime, Beech, Birch and Ash. Crab Apple, Elm, Damson, Sweet Chestnut, Willow, Scots Pine, Rowan, Yew and Poplar species were also present.

- 1.7.3 Recommendations relating to the trees surveyed are included in the Tree Survey Schedule, included in Appendix 1 of this report.

## 1.8 Legislation & Protection

- 1.8.1 Trees in England may be protected by a Tree Preservation Order (TPO) and/or if they are situated within a Conservation Area.

### *Tree Preservation Orders:*

- 1.8.2 Government guidance in relation to Tree Preservation Orders and trees in Conservation Areas states that: *“Tree Preservation Orders are made by the Local Planning Authority to protect specific trees, groups of trees or woodlands in the interests of amenity. An order prohibits the:*

- *cutting down;*
- *topping;*
- *lopping;*
- *uprooting;*
- *wilful damage; and*
- *wilful destruction*

*of trees without the Local Planning Authorities written consent.” “In the Secretary of State’s view, cutting roots is also a prohibited activity and requires the authorities consent.”*

- 1.8.3 Prior to undertaking work on trees protected by a TPO, permission must be sought from the Local Planning Authority by submitting a standard application form.

### *Conservation Areas:*

- 1.8.4 In order to undertake any work to trees present within Conservation Areas, it is a requirement to notify the Local Planning Authority of the work proposed using a Section 211 Notice. The Council must be notified 6 weeks before undertaking the work. The work may go ahead at the end of the 6 week period if the Local Planning Authority gives consent.

- 1.8.5 Note: trees within Conservation Areas which are already protected by a TPO are subject to the normal procedures and controls relating to the TPO.

*Legislation Relating to the Site:*

- 1.8.6 The interactive map on the Wyre Forest District Council website indicates that the following trees present within the site area are protected by a Tree Preservation order (please note that the references listed are based on those used as part of this survey): T4, T9, T10, T12, T13, T15, T16, T17, T18, T19, T21, T25. These trees have been highlighted as having TPO's on the drawings included in Appendix 2 of this report.
- 1.8.7 The TPO citation is entitled: *'Lea Castle Farm, Wolverhampton Road, Kidderminster. T1, T2, T5, T6, T7, T9 – Beech, T3, T4, T8, T16 – Lime, T10, T11, T14, T15, T17 – Oak, T12, T13 – Wellingtonia'*
- 1.8.8 It is understood that the site is not located within a Conservation Area.

## **1.9 Development Proposals**

- 1.9.1 It is proposed to undertake sequential mineral extraction across the site. The works are to be divided into 5 No. phases, which will be carried out over a period of 10 No. years.
- 1.9.2 The development proposals are illustrated in the drawing produced by KEDD Ltd entitled 'Block Phasing' ref: KD.LCF.013 included in Appendix 3 of this report.

## **1.10 Arboricultural Impact Assessment**

- 1.10.1 A Tree Protection Plan has been produced, identifying trees proposed for retention, protection and removal in relation to the development proposals, and is included in Appendix 2 of this report.
- 1.10.2 In total, 5 No. trees are proposed for removal to facilitate the development proposals, comprising T8, T9, T10, T22 and T26.

- 1.10.3 Of these, there is 1 No. Category U tree (T8), 2 No. are Category C trees (T10, T22), 1 No. is a Category B tree (T9), and 1 No. is a Category A tree (T26).
- 1.10.4 T8 is a Category U tree which has been assessed as being dead, as such the impacts arising from its removal are considered to be **Negligible**.
- 1.10.5 T10 is a mature Oak tree. A number of defects were present including a large area of decay at the base of the tree, poor unions, major dead wood, decay pockets which were present throughout and bark wounding. Overall its stem and base were assessed as being poor. For these reasons this tree has been assessed as being a Category C tree with limited future potential. It is important to note that this tree is protected by a TPO (see section 1.8 of this report for details). For the above reasons, the impact of its removal is considered to be **Low**
- 1.10.6 T22 is a Category C veteran Sweet Chestnut tree. Overall it was assessed as being of poor structural and physiological condition. Defects present included apical dieback, presence of stags horns, and damaged bark at its base. Due to its overall poor condition, and categorisation, the impact of its removal is considered to be **Low**.
- 1.10.7 T9 is a mature Oak tree, which is considered to be a Category B tree due to forms and structure exhibited. It is important to note that this tree has defects, including decay pockets, apical die back and major dead wood. On balance, because it is a Category B tree, and because it is protected by a TPO, the resulting impact of its removal is considered to be **Moderate**.
- 1.10.8 T26, is a mature Oak tree which has been assessed as being a Category A tree due to good overall physiological and structural condition. Due to the high categorisation of this tree the impact of its removal is considered to be **High**.
- 1.10.9 In addition to the above, 2 No. stretches of hedgerow will require removal to facilitate the development proposals, comprising approximately 89 lin m of the western extent of hedgerow H3, and 94 lin m of the western extent of hedgerow H4.
- 1.10.10 To help provide mitigation for the trees and hedgerow proposed for removal, it is proposed that new tree planting is undertaken as part of the restoration scheme, at a minimum of a 1:1 ratio basis following mineral extraction. It is recommended that the new planting uses like-for-like native species, of local provenance, and that

extra heavy standard tree stock are specified (for the individual tree planting), as a minimum. This will ensure that in the long term the adverse impacts relating to the removal of trees T9, T10, T22 and T26, and the sections of hedgerow H3 and H4 will be fully mitigated.

- 1.10.11 The proposed extraction area stand-off from the mature trees present around the sites boundaries ensures that all other trees present on/at the edges of the site will be retained as part of the development proposals. It is proposed that these are protected during the works by erecting tree protection fencing in accordance with the requirements of BS 5837:2012, as part of the development proposals.

#### Works within the RPA's of T4 and T19

- 1.10.12 The proposed extraction boundary is located within a limited section of the RPA's of trees T4 and T19. Due to the high categorisation of these trees (T4 has been assessed as being a Category B tree, and T19 as a Category A tree), in the event that these trees fail as a result of the development, the impact is expected to be **High**. As such, it is proposed the extraction area is amended to ensure that the extraction boundary no longer overlaps with the RPA's of these trees, and that no works are proposed within the RPA's.
- 1.10.13 Please see the Tree Survey Schedule, included in Appendix 1 of this report, which notes specific recommendations relating to arboricultural works to trees to be retained.

#### **1.11 Arboricultural Method Statement**

- 1.11.1 Drawings TS71-002 and 007 included in Appendix 2 of this report illustrate the trees to be retained and protected using tree protection fencing.
- 1.11.2 Prior to the commencement of construction works, the RPA's of all trees to be retained will require marking out (encompassing a circle around the trees with a radii noted in the BS 5837 Tree Schedule in Appendix 1, and illustrated in the Tree Protection and Removals Plans in Appendix 2).
- 1.11.3 Note: where the RPA's are on adjacent third party land, facing away from the development site, just the section of RPAs present within the site area will require

marking out.

- 1.11.4 Protective barrier fencing is to be erected in accordance with the requirements of BS5837:2012 (see specification included in Appendix 4 of this report), to the extent of the RPA's marked out. This area will demarcate construction exclusion zones to ensure that all works access is prevented within tree RPA's and canopy spread's, to ensure that the works do not adversely affect the trees to be retained. The protective fencing is to be erected prior to the commencement of works on site, and is to remain in place for the duration of the works.
- 1.11.5 All personnel are to be made aware of the restrictions to working within the RPA's and construction exclusion zones, within which no works access is permitted. Personnel are to be made aware that such areas are to be fenced and maintained as construction exclusion zones for the entirety of the works, in order to protect the root protection areas in accordance with BS 5837:2012. No mechanical equipment/vehicles are to be allowed within these areas, and storage of materials, vehicle tracking, storage of fuel/oil, and excavation works/alterations to ground levels are not permitted.
- 1.11.6 Given the close proximity of trees to be retained to the working area, it is imperative that tree canopies and aerial branches of these trees are not damaged by the works. Operatives are to be suitably briefed with respect of all locations where tree canopies may extend over the working area to take care to ensure that damage is not caused by vehicles or any operations associated with the works. In addition, any plant in close proximity to trees should be conducted under the supervision of a banks-man to ensure that adequate clearance from trees is maintained at all times.
- 1.11.7 No fires are to be lit within 20m of tree stems to be retained, and all new services and drainage are prohibited through tree RPA's.

Additional Requirements:

- 1.11.8 Recommendations for works to be undertaken to improve the continued establishment of the trees present on site are included in the Tree Survey Schedule which is included in Appendix 1 of this report. All works, including the tree felling work required to facilitate the development proposals outlined in this report, are to be undertaken in accordance with BS 3998:2010 by suitably qualified personnel,

and in accordance with up to date and relevant health and safety legislation.

- 1.11.9 It is recommended that all tree/scrub removal works are undertaken outside the bird nesting season (please note that the bird nesting season runs from March to August).
- 1.11.10 Overhead lines present within close proximity to trees requiring work, or to be felled, are to be identified and appropriate measures taken to ensure safe working near to these lines, including the production of risk assessments and method statements. Please note the locations of overhead lines have not been included as part of this survey, and any references to cables within the report should be regarded as cursory.
- 1.11.11 A number of the trees present on site are protected by a Tree Preservation Order (TPO) – see detail included in Section 1.8 of this report. Please note that prior permission from the Wyre Forest District Council will be required before any works (including felling) can be undertaken to the trees.

## APPENDIX 1

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### Tree Survey Schedule:

- BS 5837:2012 Tree Survey Schedule



Client: KEDD Ltd  
 Project: Lea Castle Farm  
 Survey Date: 20/05/2019  
 Surveyor: James Plaskett & Amy Plaskett



Corbet Lodge  
 Moreton Corbet  
 Shrewsbury  
 Shropshire  
 SY4 4DW  
 Phone: 01939 252 818

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
Estimated Measurements											
G1											
A Group	7	3	130 (Eq)	N	3	M	A: 7.6	Fair	C: Fair		<b>C.2</b>
--				E	3		R: 1.55		S: Fair	Tree group located to the west of the boundary fence including 1 No. multistemmed Damson, 3 No. Elm. Wide spacings between specimens, approximately 8m. Brambles present at base - unable to fully inspect.	10 to 20 yrs
				S	3				B: Fair		
				W	3						
Estimated Measurements											
G2											
A Group	16	1	350	N	5	M	A: 55.4	Fair	C: Fair		<b>B.2</b>
--				E	5		R: 4.19		S: Fair	Tree group including 5 No. Birch. Group located on 3rd party land, as such it was not possible to fully inspect.	10 to 20 yrs
				S	5				B: Fair		
				W	5						
Estimated Measurements											
G3											
A Group	20	1	500	N	6	M	A: 113.1	Good	C: Good		<b>B.1.2</b>
--				E	6		R: 6		S: Good	Group of Lime trees located to the north of the site boundary, on 3rd party land - as such it was not possible to fully assess the trees. Unbalanced crowns and growth suppression due to the close proximity of trees and competition for light. Epicormic growths.	20 to 40 yrs
				S	7				B: Good		
				W	6						
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature		<b>Condition:</b>	C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature			S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature			B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
Estimated Measurements											
G4											
A Group	17	1	500	N	6	M	A: 113.1	Fair	C: Fair	Remove :: Major dead wood Remove :: Stubs See Comment :: See Comment  Tree group located to the north of the boundary fence, including Oak, Sycamore, Hawthorn, Privet. Defects present include major dead wood, stubs, storm damage. Located on 3rd party land - as such it was not possible to fully assess. Southern canopies were located close to a BT cable, ensure up to 2m clearance.	<b>C.1.2</b>
--				E	6		R: 6		S: Fair		20 to 40
				S	6				B: Fair		yrs
				W	6						
Estimated Measurements											
G5											
A Group	17	1	380	N	6	M	A: 65.3	Good	C: Fair	Ivy :: Sever only	<b>C.2</b>
--				E	6		R: 4.55		S: Fair	Remove :: Major dead wood	20 to 40
				S	6				B: Fair		yrs
				W	6						
										Tree group including Oak, Sycamore, Hawthorn, Yew, Sweet Chestnut, Privet. Trees are located in close proximity, as such there is little lower lateral growth, stems were leaning and unbalanced crowns present due to light suppression. Trees will need thinning in the future, to remove the lower quality trees. Major dead wood present. Squirrel damage evident. Recommendation to sever Ivy.	
Estimated Measurements											
G6											
A Group	18	1	550	N	6	M	A: 136.9	Good	C: Fair	Ivy :: Sever only	<b>B.1.2</b>
--				E	6		R: 6.6		S: Fair	Remove :: Major dead wood	20 to 40
				S	6				B: Fair		yrs
				W	6						
										Tree group including Sycamore, Elder, Privet, Elm, Oak, Holly. Recommendation to sever Ivy, and remove major dead wood.	
Estimated Measurements											
G7											
A Group	10	1	280	N	4	M	A: 35.5	Fair	C: Fair		<b>C.2</b>
--				E	4		R: 3.36		S: Fair	Tree group including Goat willow, Cherry, Scots Pine, Rowan, Oak, Hawthorn, Sycamore. Recommendation to remove major dead wood. Trees will need thinning in the future due to close proximities.	20 to 40
				S	4				B: Fair		yrs
				W	4						
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature		<b>Condition:</b>	C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature			S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature			B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
Estimated Measurements											
G8											
A Group	5	1	120	N	2	SM	A: 6.5	Good	C: Good		<b>C.2</b>
--				E	2		R: 1.43		S: Good	Young plantation including Oak, Lime, Elm, Sycamore located to the west of the boundary fence. Dutch Elm Disease present - some Elms are dying.	20 to 40 yrs
				S	2				B: Good		
				W	2						
Estimated Measurements											
G9											
A Group	14	1	300	N	5	M	A: 40.7	Fair	C: Good	Ivy :: Sever only	<b>C.2</b>
--				E	4		R: 3.59		S: Fair	Tree group including Sycamore, Elm, Hawthorn, Elder, Silver Birch, Holly, Yew, Sweet Chestnut, Horse Chestnut, Laurel, Lime. Largest diameter is 650mm. Trees are in close proximity and will need thinning in the future. As such there is little lower lateral growth, and unbalanced canopies. Ivy present.	20 to 40 yrs
				S	4				B: Fair		
				W	4						
Estimated Measurements											
G10											
A Group	12	1	390	N	4	SM	A: 68.8	Fair	C: Fair	Ivy :: Sever only	<b>C.2</b>
--				E	4		R: 4.67		S: Fair	Tree group including Leylandii (planted in lines as hedgerow), Oak, Scots Pine, Elder, Sycamore, Willow, Lilac, Beech, Maple, Crab Apple. Currently unmanaged, but likely to have originally been part of an old garden to adjacent property. Poor unions. Ivy present.	20 to 40 yrs
				S	4				B: Fair		
				W	4						
Estimated Measurements											
G11											
A Group	12	1	350	N	5	M	A: 55.4	Fair	C: Fair	Ivy :: Sever only	<b>C.1.2</b>
--				E	5		R: 4.19		S: Fair	Tree group including Purple Acer, Sycamore, Ash, Poplar, Cedar, Willow. 3rd party owned, as such it was not possible to directly access. Recommendation to sever Ivy.	20 to 40 yrs
				S	5				B: Fair		
				W	5						
Estimated Measurements											
G12											
A Group	14	1	360	N	5	M	A: 58.6	Fair	C: Fair	Ivy :: Sever only	<b>C.2</b>
--				E	5		R: 4.31		S: Fair	Tree group located to the south of the fence, including Sycamore. 3rd party owned, as such it was not possible to directly access. Ivy present prevents a full inspection. Light suppression due to close proximity of the trees.	20 to 40 yrs
				S	5				B: Fair		
				W	5						
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature		<b>Condition:</b>	C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature			S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature			B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
Estimated Measurements											
G13											
A Group	16	1	700	N	6	M	A: 221.7	Fair	C: Fair	Ivy :: Sever only	<b>C.2</b>
--				E	6		R: 8.4		S: Fair	See Comment :: See Comment	20 to 40 yrs
				S	6				B: Fair		
				W	6					Tree group including 2 No. Sycamore, 1 No. dead Hawthorn, 1 No. Holly. Ivy present prevents a full inspection to 1 No. Sycamore. Sycamore are located on 3rd party land, as such it was not possible to fully assess. Recommendation to sever Ivy, and fell dead Hawthorn.	
Estimated Measurements											
G14											
A Group	7	1	300	N	3	M	A: 40.7	Fair	C: Fair		<b>C.2</b>
--				E	3		R: 3.59		S: Fair	Sycamore tree group located immediately east of the site boundary. Has been heavily pollarded/coppiced. Signs of resistograph testing.	20 to 40 yrs
				S	3				B: Fair		
				W	3						
Estimated Measurements											
H1											
A Group	3	3	40 (Eq)	N	1.5	M	A: 0.7	Good	C: Good		<b>B.2</b>
--				E	1.5		R: 0.47		S: Fair	Hedgerow including Hawthorn. Bramble. Gappy in places.	20 to 40 yrs
				S	1.5				B: Fair		
				W	1.5						
Estimated Measurements											
H2											
A Group	2	3	50 (Eq)	N	1.5	M	A: 1.1	Good	C: Good		<b>B.2.3</b>
--				E	1.5		R: 0.59		S: Fair	Hedgerow including Hawthorn, Elm, Elder, located to the east of the track. Gappy.	20 to 40 yrs
				S	1.5				B: Fair		
				W	1.5						
Estimated Measurements											
H3											
A Hedgerow	3	3	30 (Eq)	N	1.5	M	A: 0.4	Good	C: Good		<b>B.2.3</b>
- <i>Spp.</i>				E	1.5		R: 0.35		S: Fair	Hedgerow including Elm, Hawthorn, located to the south of the track. Sparse beneath the mature tree present here.	20 to 40 yrs
				S	1.5				B: Fair		
				W	1.5						
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature		<b>Condition:</b>	C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature			S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature			B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
<b>H4</b>											
A Hedgerow - <i>Spp.</i>	4	3	30 (Eq)	N	1.5	M	A: 0.4 R: 0.35	Good	C: Good S: Fair B: Fair	Hedgerow including Hawthorn, Elm, Bramble. Hedge is sparse and gappy in places, and doesn't appear to be managed.	<b>B.2.3</b> 20 to 40 yrs
<b>T1</b>											
Deodar Cedar <i>Cedrus deodara</i>	24	1	890	N	8	M	A: 358.4 R: 10.68	Fair	C: Fair S: Fair B: Fair	Estimated Measurements Tree is located approximately 3m to the east of the fence, on 3rd party land - as such it was not possible to fully assess. Livestock present in field. Major dead wood present throughout, storm damage evident.	<b>C.2</b> 10 to 20 yrs
<b>T2</b>											
Common Oak <i>Quercus robur</i>	19	1	650	N	6	M	A: 191.2 R: 7.8	Fair	C: Fair S: Good B: Fair	Estimated Measurements Tree is located approximately 2m to the east of the fence line, on 3rd party land - as such it was not possible to directly assess. Major dead wood and stubs present. Some die back in upper crown.	<b>B.1.2</b> 20 to 40 yrs
<b>T3</b>											
Sycamore <i>Acer pseudoplatanus</i>	16	0		N	6	M	A: 0 R: 0	Fair	C: Good S: Fair B: Fair	Tree is located on 3rd party land, as such it was not possible to fully assess. Major dead wood present. Southern canopy is touching Bt cable - recommendation to reduce to allow up to 2m clearance.	<b>B.1.2</b> 20 to 40 yrs
<b>T4</b>											
Wellingtonia <i>Sequoiadendron giganteum</i>	28	1	1520	N	4	M	A: 707 R: 15	Fair	C: Fair S: Fair B: Fair	Remove :: Major dead wood Remove :: Stubs Changes in levels at the base of this tree have occurred, and the land at its base is higher than the existing ground surrounding (by approximately 1.5m), possibly due to works associated with the motorcross tracks here. The tree has lost limbs (common to species), and there are failed and fractured branches, as well hanging branches and major dead wood present. Recommendation to remove major dead wood and stubs.	<b>B.1.2.3</b> 20 to 40 yrs
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature	<b>Condition:</b>		C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature			S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature			B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
<b>T5</b>											
Common Oak <i>Quercus robur</i>	15	1	1350	N E S W	5 4 9 5	M	A: 707 R: 15	Fair	C: Fair S: Poor B: Poor	Reduce crown(s) :: By 20% Remove :: Major dead wood Remove :: Stubs  Tree is located approximately 6m from the edge of the field, adjacent to the rear boundaries of adjacent properties, and adjacent to a footpath. Major dead wood present, as well as stubs, and a failed branch at 4m height to the south. Tree is in poor condition, and there are signs of a fungus present to base to the north - recommendation to reinspect for signs of fungal fruiting bodies in the autumn. Recommendation to crown reduce by 20%	<b>C.1.2</b> 10 to 20 yrs
<b>T6</b>											
Common Lime <i>Tilia europaea</i>	19	1	1070	N E S W	9 9 10 9	M	A: 518 R: 12.84	Fair	C: Fair S: Fair B: Fair	Tree has major dead wood present throughout, over extended branches and a sparse lower crown - recommendation to monitor going forward. Pruning wounds are evident, which the tree does not appear to have responded well to.	<b>B.1.2</b> 20 to 40 yrs
<b>T7</b>											
Common Lime <i>Tilia europaea</i>	24	1	1230	N E S W	7 7 8 8	M	A: 684.5 R: 14.76	Good	C: Good S: Good B: Fair	Tree is located approximately 3m to the south of the boundary. Dead branch located at 8m height to the north. Included bark present at 3m height - recommendation to monitor. Recommendation to sever Ivy.	<b>B.1.2</b> 20 to 40 yrs
<b>T8</b>											
Common Oak <i>Quercus robur</i>	13	1	1070	N E S W	6 6 7 7	Dead	A: 518 R: 12.84	Dead	C: Poor S: Poor B: Poor	Tree is dead May be suitable for retention for habitat value. Elder shrub at base to the south (multistemmed average 130mm diameter).	<b>U</b> n/a
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature		<b>Condition:</b>	C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature			S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature			B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
<b>T9</b>											
Common Oak <i>Quercus robur</i>	15	1	1500	N E S W	7 9 8 8	M	A: 707 R: 15	Fair	C: Fair S: Fair B: Fair	Tree has a decay pocket 3m height to the west - recommendation to monitor and re-inspect. Stand off of the arable farmland surrounding appears to be fair, however the compaction (from machinery) at the base of the tree is likely to be causing stress. Defects present include apical die back, major dead wood, hanging branch. There is a damaged branch at 10m height, which is exhibiting good reaction growth. Self set Holly is growing from the union to the main stem. Overall it is recommended that an aerial inspection of the tree is undertaken. Woodpecker holes present.	<b>B.1.2.3</b> 20 to 40 yrs
<b>T10</b>											
Common Oak <i>Quercus robur</i>	17	1	1480	N E S W	7 5 9 9	M	A: 707 R: 15	Fair	C: Fair S: Poor B: Poor	Reduce crown(s) :: By 15% Remove :: Major dead wood Remove :: Stubs  3 No. large branches have failed at 3m height to the east. Decay present at base (1400mm tall by 900mm). Other defects include poor unions, decay pockets throughout, major dead wood and bark wounding. Recommendation to tidy stubs, remove major dead wood, and consider crown reducing by 15%	<b>C.2</b> 10 to 20 yrs
<b>T11</b>											
Common Lime <i>Tilia europaea</i>	20	1	970	N E S W	9 7 4 7	M	A: 425.7 R: 11.64	Good	C: Good S: Fair B: Fair	Tree is located on the northern edge of the wooded area. Defects present include major dead wood and stubs. Ivy present prevents a full inspection - recommendation to sever and reinspect.	<b>B.1.2</b> 20 to 40 yrs
<b>T12</b>											
Common Beech <i>Fagus sylvatica</i>	23	1	1240	N E S W	4 5 7 8	M	A: 695.7 R: 14.88	Fair	C: Fair S: Fair B: Fair	Tree is located to the east of the field fence. It has a sparse canopy and appears to be stressed, which may be a result of compaction at the base. Rowan growing at 3m height at to union between stems. Overall it is recommended that this tree is monitored, and re-inspected in 6 months for signs of fungus.	<b>B.1.2</b> 20 to 40 yrs
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature		<b>Condition:</b>	C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature			S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature			B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
<b>T13</b>											
Common Lime <i>Tilia europaea</i>	26	1	790	N E S W	6 6 5 6	M	A: 282.4 R: 9.48	Good	C: Good S: Fair B: Fair	Tree is located to the east of the fence. The presence of epicormic growths at the base, mean it was not possible to survey the base of this tree. Included bark present at union between co-dominant stems at 8m height - recommendation to monitor.	<b>B.1.2</b> 20 to 40 yrs
<b>T14</b>											
Common Beech <i>Fagus sylvatica</i>	21	1	860	N E S W	8 9 5 6	M	A: 334.6 R: 10.32	Good	C: Good S: Fair B: Good	Tree is located to the east of the track, to the west of an embankment (approx. 1.8m height). Past branch failure, now a stub present at 6m height to the north. Recommendation to alleviate end loading weight to the east, and monitor cavities at 3m height to the east.	<b>B.1.2.3</b> >40 yrs
<b>T15</b>											
Common Beech <i>Fagus sylvatica</i>	20	1	1020	N E S W	7 7 6 4	M	A: 470.7 R: 12.24	Good	C: Good S: Good B: Good	Tree is located to the east of the track, west of an embankment (approx. 1.5m height). Good unions. Recommendation to crown lift up to 5.5m on road side.	<b>A.1.2.3</b> >40 yrs
<b>T16</b>											
Common Lime <i>Tilia europaea</i>	21	1	890	N E S W	5 5 6 5	M	A: 358.4 R: 10.68	Good	C: Good S: Fair B: Fair	Presence of dense epicormic growths mean it was not possible to inspect the basal area - recommendation to remove and reinspect.	<b>B.1.2.3</b> 20 to 40 yrs
<b>T17</b>											
Common Beech <i>Fagus sylvatica</i>	18	1	920	N E S W	8 4 4 7	M	A: 383 R: 11.04	Dead	C: Poor S: Poor B: Poor	Fell :: Fell to ground level Dead tree - recommendation to fell.	<b>U</b> n/a
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature							
	Y	Young	M	Mature							
	SM	Semi-mature	OM	Over Mature							
<b>Condition:</b>	C	Crown									
	S	Stem									
	B	Basal area									
<b>Stems:</b>	Ø	Diameter									
	(Eq)	Equivalent stem diameter using BS5837:2012 definition									
<b>ERC:</b>		Estimated Remaining Contribution									



Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
<b>T18</b>											
Common Beech <i>Fagus sylvatica</i>	11	1	720	N E S W	7 7 6 7	M	A: 234.5 R: 8.63	Good	C: Good S: Good B: Good	Raise low canopy :: To 5.0m Remove :: Stubs  Recommendation to remove stubs and crown lift up to 5.5m height on the road side.	<b>A.1.2.3</b>  >40 yrs
<b>T19</b>											
Common Beech <i>Fagus sylvatica</i>	19	1	1040	N E S W	7 6 10 9	M	A: 489.4 R: 12.48	Good	C: Good S: Good B: Good	See Comment :: See Comment  Tree is located immediately adjacent to the fence (fence located to the east). Recommendation to crown lift up to 5.5m height on the road side.	<b>A.1.2.3</b>  >40 yrs
<b>T20</b>											
Common Lime <i>Tilia europaea</i>	18	1	900	N E S W	5 5 6 5	M	A: 366.5 R: 10.8	Good	C: Good S: Fair B: Fair	See Comment :: See Comment  Dense epicormic growths at base mean that it was not possible to fully survey the basal area of this tree - recommendation to remove epicormic growths and reinspect. Minor dead wood in upper crown - monitor. Crown lift up to 5.5m height on the road side.	<b>B.1.2.3</b>  20 to 40 yrs
<b>T21</b>											
Common Beech <i>Fagus sylvatica</i>	19	1	850	N E S W	8 5 6 5	M	A: 326.9 R: 10.2	Good	C: Good S: Good B: Good	See Comment :: See Comment  Tree is located to the east of the track. Minor dead wood present. Recommendation to sever Ivy, crown lift up to 5.5m height on the road side, and remove stubs.	<b>A.1.2.3</b>  >40 yrs
<b>T22</b>											
Sweet Chestnut <i>Castanea sativa</i>	9	1	1200	N E S W	4 4 5 4	Veteran	A: 651.5 R: 14.4	Poor	C: Poor S: Poor B: Poor	Tree has apical dieback, stags horns and damaged bark at base. It could be retained for habitat value. There is a high proportion of epicormic growths - preventing a full inspection.	<b>C.1.2.3</b>  10 to 20 yrs
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature							
	Y	Young	M	Mature							
	SM	Semi-mature	OM	Over Mature							
<b>Condition:</b>	C	Crown									
	S	Stem									
	B	Basal area									
<b>Stems:</b>	Ø	Diameter									
	(Eq)	Equivalent stem diameter using BS5837:2012 definition									
<b>ERC:</b>		Estimated Remaining Contribution									

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
<b>T23</b> Wellingtonia <i>Sequoiadendron giganteum</i>	27	1	1710	N E S W	4 4 5 5	M	A: 707 R: 15	Good	C: Good S: Good B: Good	Good quality tree. Stand off of arable farmland surrounding appears to be fair. This tree is a fine example of an unmanaged Wellingtonia tree.	<b>A.1.2.3</b> >40 yrs
<b>T24</b> Crab Apple <i>Malus sylvestris</i>	5	5	150 (Eq)	N E S W	2 2 2 2	M	A: 10.2 R: 1.8	Fair	C: Fair S: Fair B: Poor	Tree is located in the fence line.	<b>C.2</b> 10 to 20 yrs
<b>T25</b> Common Oak <i>Quercus robur</i>	11	1	1650	N E S W	5 5 7 4	Veteran	A: 707 R: 15	Fair	C: Poor S: Poor B: Poor	Tree appears to be stressed and is retrenching, has apical dieback, stags horns and advantageous growth. Recommendation to remove major dead wood to safe point, and remove stubs leaving 1m stubs for correletic/habitat value, remove Elder at base.	<b>C.1.2.3</b> 10 to 20 yrs
<b>T26</b> Common Oak <i>Quercus robur</i>	11	1	710	N E S W	6 7 7 7	M	A: 228.1 R: 8.52	Good	C: Good S: Good B: Good	Remove :: Major dead wood  Tree is located immediately to the south of the hedge line. There is some decay at its base, and scaring to an upper branch to the west, which has good reaction wood. Stubs present and major dead wood.	<b>A.1.2</b> >40 yrs
<b>T27</b> Common Ash <i>Fraxinus excelsior</i>	14	1	350	N E S W	4 4 4 4	M	A: 55.4 R: 4.19	Good	C: Fair S: Fair B: Fair	Tree is located outside the site boundary and is 3rd party owned, as such it was not possible to fully inspect. Presence of dense brambles meant it was not possible to fully assess.	<b>B.1.2</b> 20 to 40 yrs
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature							
	Y	Young	M	Mature							
	SM	Semi-mature	OM	Over Mature							
<b>Condition:</b>	C	Crown									
	S	Stem									
	B	Basal area									
<b>Stems:</b>	Ø	Diameter									
	(Eq)	Equivalent stem diameter using BS5837:2012 definition									
<b>ERC:</b>		Estimated Remaining Contribution									

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
Estimated Measurements											
T28 White Poplar <i>Populus alba</i>	20	1	450	N E S W	5 5 5 5	M	A: 91.6 R: 5.39	Good	C: Good S: Good B: Fair	Tree is located between 2 No. fences - as such ownership is unknown. It is possible that these trees are in 3rd party ownership. Dense understory present to the east prevents access and full inspection.	C.2 10 to 20 yrs
T29 Sycamore <i>Acer pseudoplatanus</i>	12	1	520	N E S W	5 6 5 6	M	A: 122.3 R: 6.23	Fair	C: Good S: Fair B: Fair	Tree is located between 2 No. fences, as such ownership is unknown. Cavity from base to 2m height has good reaction wood, and is callusing. Ivy present prevents a full inspection.	C.2 20 to 40 yrs
T30 Sycamore <i>Acer pseudoplatanus</i>	6	1	380	N E S W	2 2 2 2	M	A: 65.3 R: 4.55	Fair	C: Poor S: Poor B: Poor	See Comment :: See Comment  Tree is located approximately 1.5m to the east of the boundary fence. Bark damage from base to 1.2m height. Tree appears to have been pollarded, and has regenerated. Resistograph tested holes evident in stem at 1m height. Recommendation to monitor and maintain.	C <10 yrs
T31 Common Ash <i>Fraxinus excelsior</i>	17	1	550	N E S W	8 9 6 8	M	A: 136.9 R: 6.6	Fair	C: Fair S: Fair B: Fair	Branches to this tree have failed in the past. Tree is over extended to the north. Recommendation to remove major dead wood, stubs and alleviate over extended branches. Large decay pockets 1m height to the west, good reaction wood at present.	C.2 20 to 40 yrs
T32 Sycamore <i>Acer pseudoplatanus</i>	8	2	1003 (Eq)	N E S W	3 3 3 3	M	A: 455.6 R: 12.04	Fair	C: Fair S: Poor B: Fair	Tree is located approximately 1.5m to the east of the fence line. Has been pollarded in past to 5m height. Resistograph tested holes evident in stem at 1m height. Suckers present at base (Elder), as such it was not possible to fully assess the base of this tree.	C.2 10 to 20 yrs
<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature	<b>Condition:</b>		C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature			S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature			B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m <sup>2</sup> ) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
T33										Estimated Measurements	
Silver Birch <i>Betula pendula</i>	8	1	180	N	2	SM	A: 14.7 R: 2.16	Fair	C: Good S: Good B: Fair	Tree is located immediately adjacent to a breeze block wall, likely to cause damage in future, there are currently large cracks in the wall. The tree is located relatively close to an agricultural building as well.	<b>C.2</b> <10 yrs

<b>Age Classifications:</b>	N	Newly planted	EM	Early Mature	<b>Condition:</b>	C	Crown	<b>Stems:</b>	Ø	Diameter
	Y	Young	M	Mature		S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature		B	Basal area	<b>ERC:</b>		Estimated Remaining Contribution

## APPENDIX 2

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### Drawings:

- Tree Survey Plan
- Tree Retention & Removal Plan
- Suite of Tree Protection & Removal Plans



- Legend:
- Category A Tree
  - Category B Tree
  - Category C Tree
  - Category U Tree
  - Tree Group
  - Hedgerow
  - Root Protection Area (RPA)

Please Note: The Root Protection Areas (RPA's) illustrated for tree groups present represent a worst case scenario. Prior to construction works precise RPA's are to be marked on the ground relating to specific distances from each tree stem.

PROJECT REF:  
**LEA CASTLE FARM,  
 WOLVERLEY**

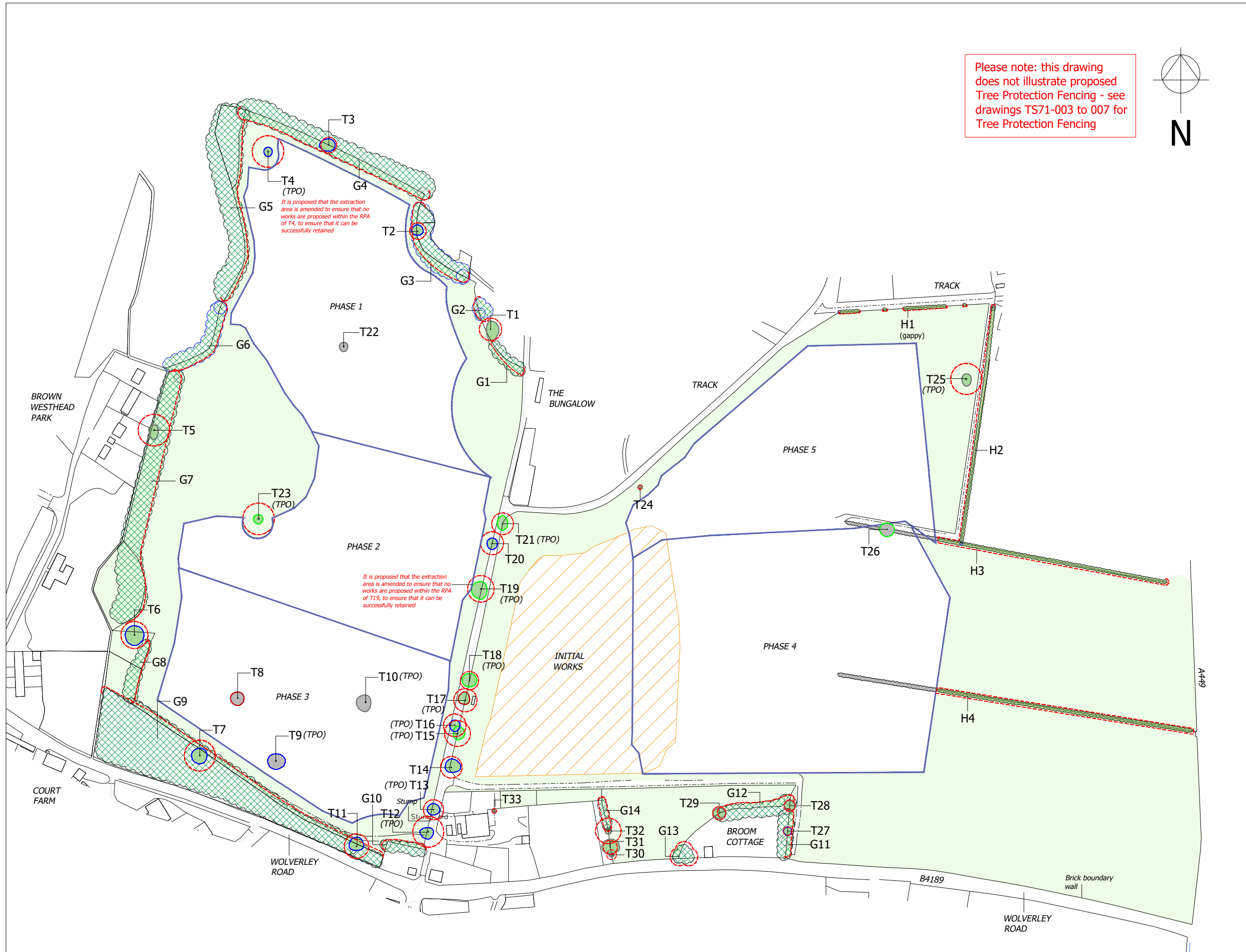
TITLE:  
**TREE SURVEY  
 - CONTEXT PLAN**

CLIENT: KEDD Ltd	DATE: May 2019
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DWG REF: TS71-001	SCALE: NTS
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THE ORIGINAL OF THIS DRAWING WAS  
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 COPY SHOULD NOT BE RELIED UPON



Please note: this drawing does not illustrate proposed Tree Protection Fencing - see drawings TS71-003 to 007 for Tree Protection Fencing



- Legend:
- Category A Tree
  - Category B Tree
  - Category C Tree
  - Category U Tree
  - Tree Group
  - Hedgerow
  - Root Protection Area (RPA)
  - Proposed Extraction Area

- Trees/Hedgerow to be Removed:
- Category A tree
  - Category B Tree
  - Category C tree
  - Category U Tree
  - Hedgerow

Please Note: The Root Protection Areas (RPA's) illustrated for tree groups present represent a worst case scenario. Prior to construction works precise RPA's are to be marked on the ground relating to specific distances from each tree stem.

PROJECT REF:  
**LEA CASTLE FARM,  
WOLVERLEY**

TITLE:  
**TREE RETENTION  
& REMOVAL PLAN**

CLIENT:  
KEDD Ltd

DATE:  
May 2019

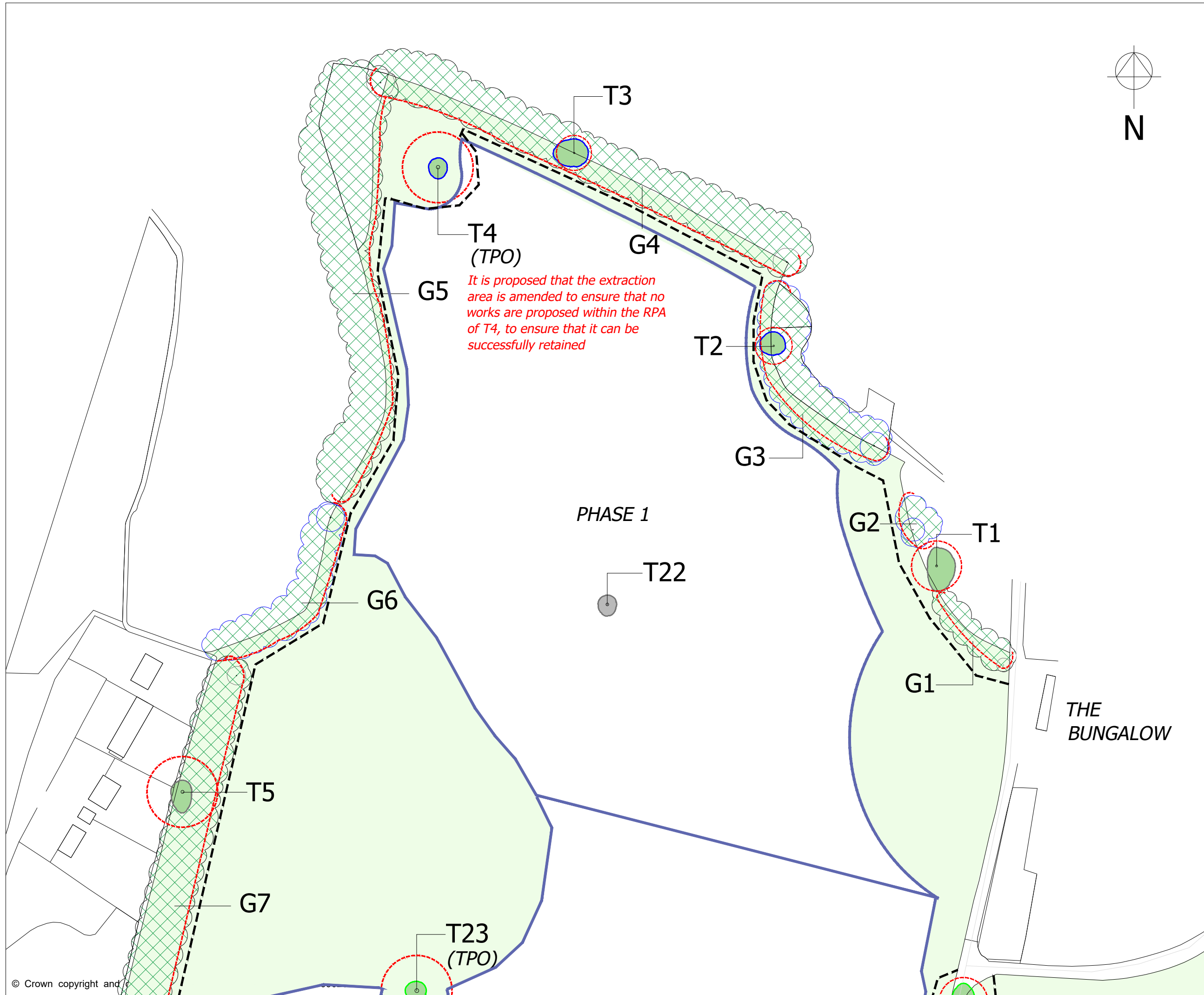
DWG REF:  
TS71-002

SCALE:  
NTS









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Trees/Hedgerow to be Retained & Protected:

-  Category A Tree
-  Category B Tree
-  Category C Tree
-  Category U Tree
-  Tree Group
-  Hedgerow
-  Root Protection Area (RPA)
-  Tree Protection Fencing

Trees/Hedgerow to be Removed:

-  Category A tree
-  Category B Tree
-  Category C tree
-  Category U Tree
-  Hedgerow

Proposed Mineral Extraction:

-  Proposed Extraction Area

Please Note: The Root Protection Areas (RPA's) illustrated for tree groups present represent a worst case scenario. Prior to construction works precise RPA's are to be marked on the ground relating to specific distances from each tree stem.

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PROJECT REF:  
**LEA CASTLE FARM,  
 WOLVERLEY**

TITLE:  
**TREE PROTECTION  
 & REMOVAL PLAN 1**

CLIENT:  
 KEDD Ltd

DATE:  
 May 2019

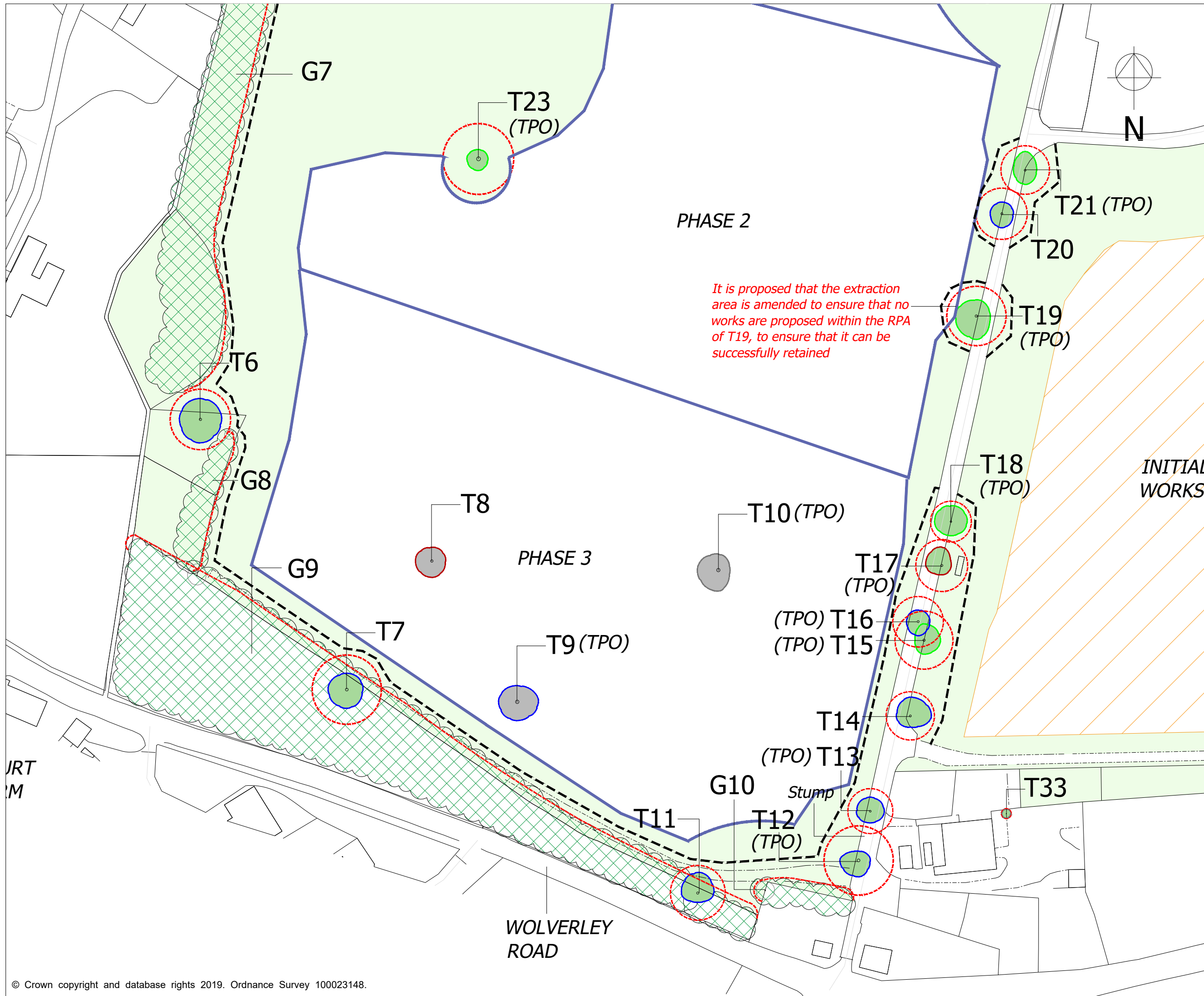
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



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Trees/Hedgerow to be Retained & Protected:

-  Category A Tree
-  Category B Tree
-  Category C Tree
-  Category U Tree
-  Tree Group
-  Hedgerow
-  Root Protection Area (RPA)
-  Tree Protection Fencing

Trees/Hedgerow to be Removed:

-  Category A tree
-  Category B Tree
-  Category C tree
-  Category U Tree
-  Hedgerow

Proposed Mineral Extraction:

-  Proposed Extraction Area

Please Note: The Root Protection Areas (RPA's) illustrated for tree groups present represent a worst case scenario. Prior to construction works precise RPA's are to be marked on the ground relating to specific distances from each tree stem.

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PROJECT REF:  
**LEA CASTLE FARM,  
WOLVERLEY**

TITLE:  
**TREE PROTECTION  
& REMOVAL PLAN 2**

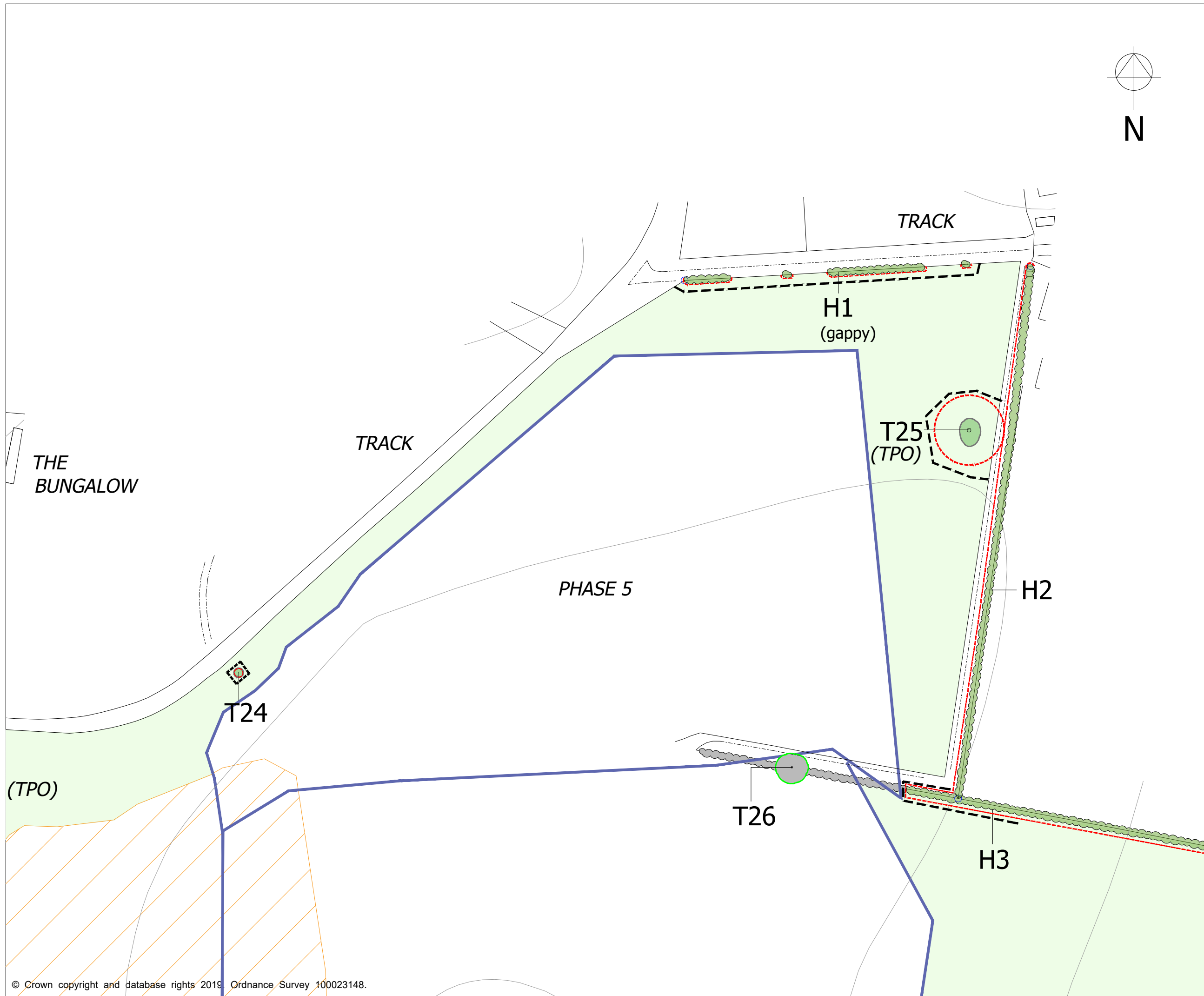
CLIENT:  
KEDD Ltd

DATE:  
May 2019









DWG REF:  
TS71-004

SCALE:  
1:1500@A3






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Trees/Hedgerow to be Retained & Protected:

-  Category A Tree
-  Category B Tree
-  Category C Tree
-  Category U Tree
-  Tree Group
-  Hedgerow
-  Root Protection Area (RPA)
-  Tree Protection Fencing

Trees/Hedgerow to be Removed:

-  Category A tree
-  Category B tree
-  Category C tree
-  Category U Tree
-  Hedgerow

Proposed Mineral Extraction:

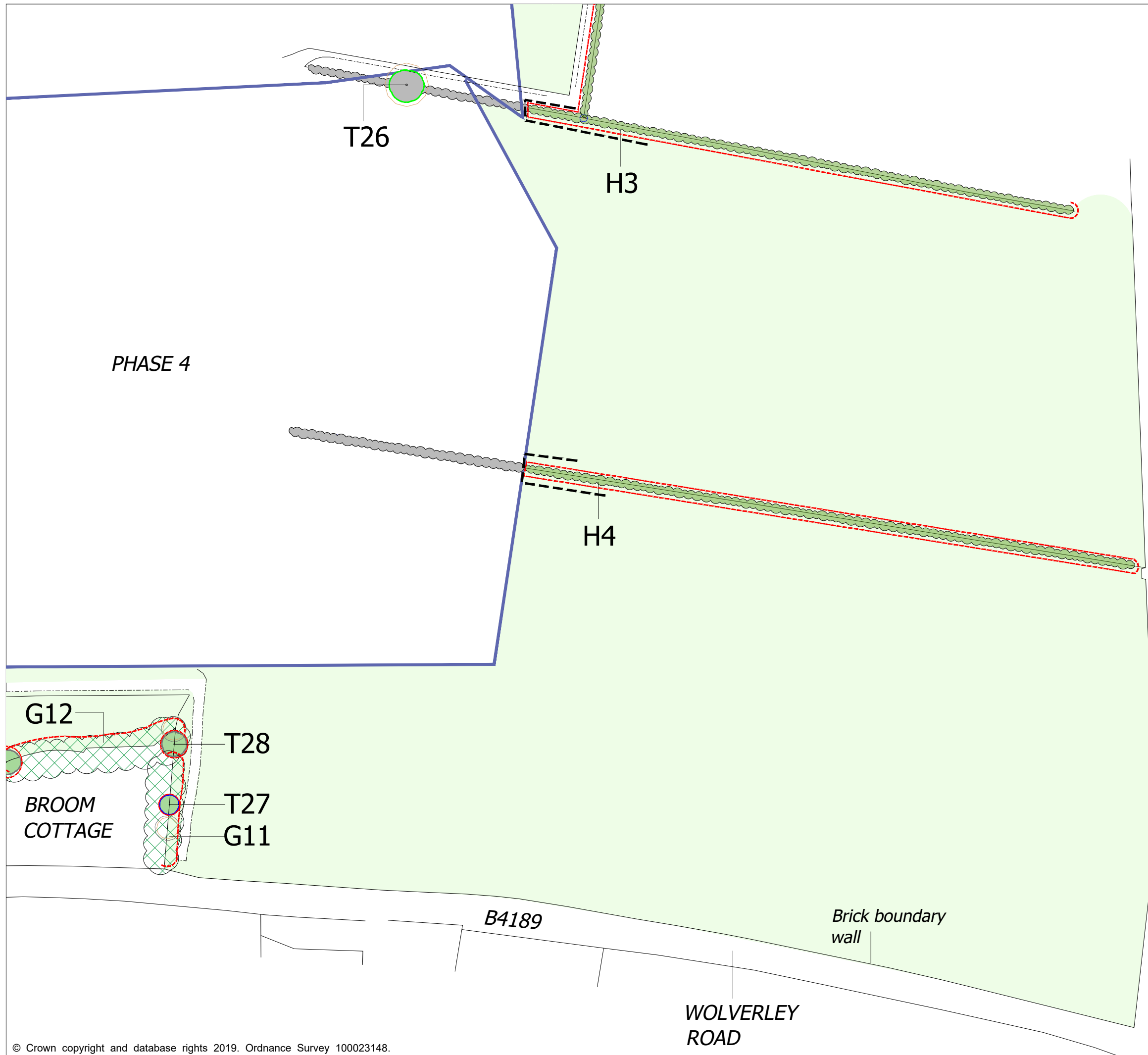
-  Proposed Extraction Area

Please Note: The Root Protection Areas (RPA's) illustrated for tree groups present represent a worst case scenario. Prior to construction works precise RPA's are to be marked on the ground relating to specific distances from each tree stem.









THE ORIGINAL OF THIS DRAWING WAS PRODUCED IN COLOUR - A MONOCHROME COPY SHOULD NOT BE RELIED UPON

PROJECT REF: <b>LEA CASTLE FARM, WOLVERLEY</b>	
TITLE: <b>TREE PROTECTION &amp; REMOVAL PLAN 3</b>	
CLIENT: KEDD Ltd	DATE: May 2019
DWG REF: TS71-005	SCALE: 1:1500@A3






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Trees/Hedgerow to be Retained & Protected:

-  Category A Tree
-  Category B Tree
-  Category C Tree
-  Category U Tree
-  Tree Group
-  Hedgerow
-  Root Protection Area (RPA)
-  Tree Protection Fencing

Trees/Hedgerow to be Removed:

-  Category A tree
-  Category B Tree
-  Category C tree
-  Category U Tree
-  Hedgerow

Proposed Mineral Extraction:

-  Proposed Extraction Area

Please Note: The Root Protection Areas (RPA's) illustrated for tree groups present represent a worst case scenario. Prior to construction works precise RPA's are to be marked on the ground relating to specific distances from each tree stem.

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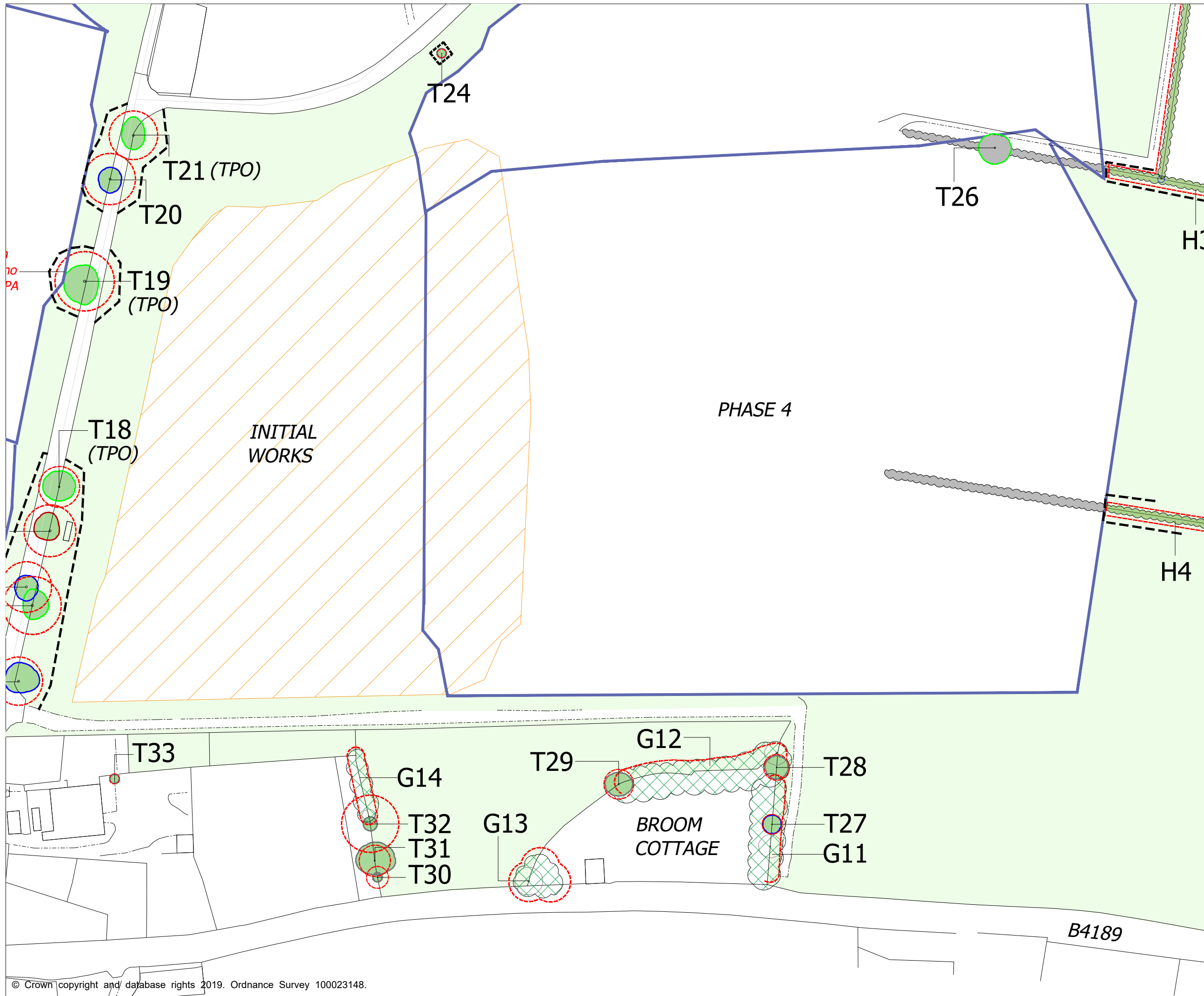
PROJECT REF:  
**LEA CASTLE FARM,  
WOLVERLEY**

TITLE:  
**TREE PROTECTION  
& REMOVAL PLAN 4**

CLIENT: KEDD Ltd	DATE: May 2019
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DWG REF: TS71-006	SCALE: 1:1500@A3
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Trees/Hedgerow to be Retained & Protected:

- Category A Tree
- Category B Tree
- Category C Tree
- Category U Tree
- Tree Group
- Hedgerow
- Root Protection Area (RPA)
- Tree Protection Fencing

Trees/Hedgerow to be Removed:

- Category A tree
- Category B Tree
- Category C tree
- Category U Tree
- Hedgerow

Proposed Mineral Extraction:

- Proposed Extraction Area

Please Note: The Root Protection Areas (RPA's) illustrated for tree groups present represent a worst case scenario. Prior to construction works precise RPA's are to be marked on the ground relating to specific distances from each tree stem.

THE ORIGINAL OF THIS DRAWING WAS PRODUCED IN COLOUR - A MONOCHROME COPY SHOULD NOT BE RELIED UPON

PROJECT REF:  
**LEA CASTLE FARM,  
WOLVERLEY**

TITLE:  
**TREE PROTECTION  
& REMOVAL PLAN 5**

CLIENT:  
KEDD Ltd

DATE:  
May 2019

DWG REF:  
TS71-007

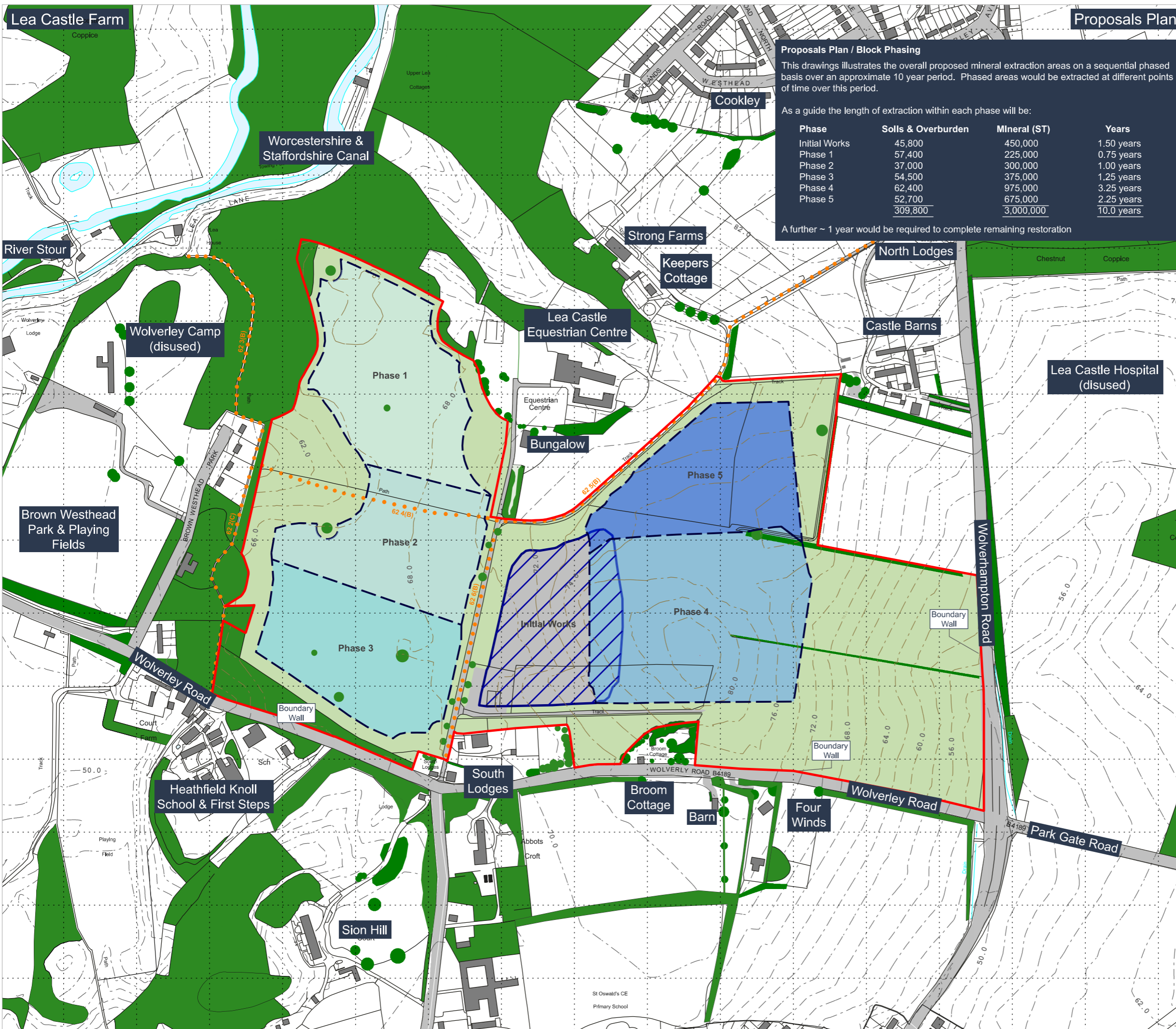
SCALE:  
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## APPENDIX 3

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Development Proposals



**Proposals Plan**

**Proposals Plan / Block Phasing**

This drawings illustrates the overall proposed mineral extraction areas on a sequential phased basis over an approximate 10 year period. Phased areas would be extracted at different points of time over this period.

As a guide the length of extraction within each phase will be:

Phase	Soils & Overburden	Mineral (ST)	Years
Initial Works	45,800	450,000	1.50 years
Phase 1	57,400	225,000	0.75 years
Phase 2	37,000	300,000	1.00 years
Phase 3	54,500	375,000	1.25 years
Phase 4	62,400	975,000	3.25 years
Phase 5	52,700	675,000	2.25 years
	<u>309,800</u>	<u>3,000,000</u>	<u>10.0 years</u>

A further ~ 1 year would be required to complete remaining restoration

**LEGEND**

- Application Boundary
- Initial Works
- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Final Works

Soils and Overburden to be stripped (based on 1.2m soil profile) to remain on site and placed for restoration.

Planning Application Drawing No. 4



PROJECT:  
Lea Castle Farm

TITLE:  
Proposals Plan

REF NO:  
KD.LCF.013

DATE: October 2019      SCALE: 1:5,000 @ A3

STATUS:  
FINAL



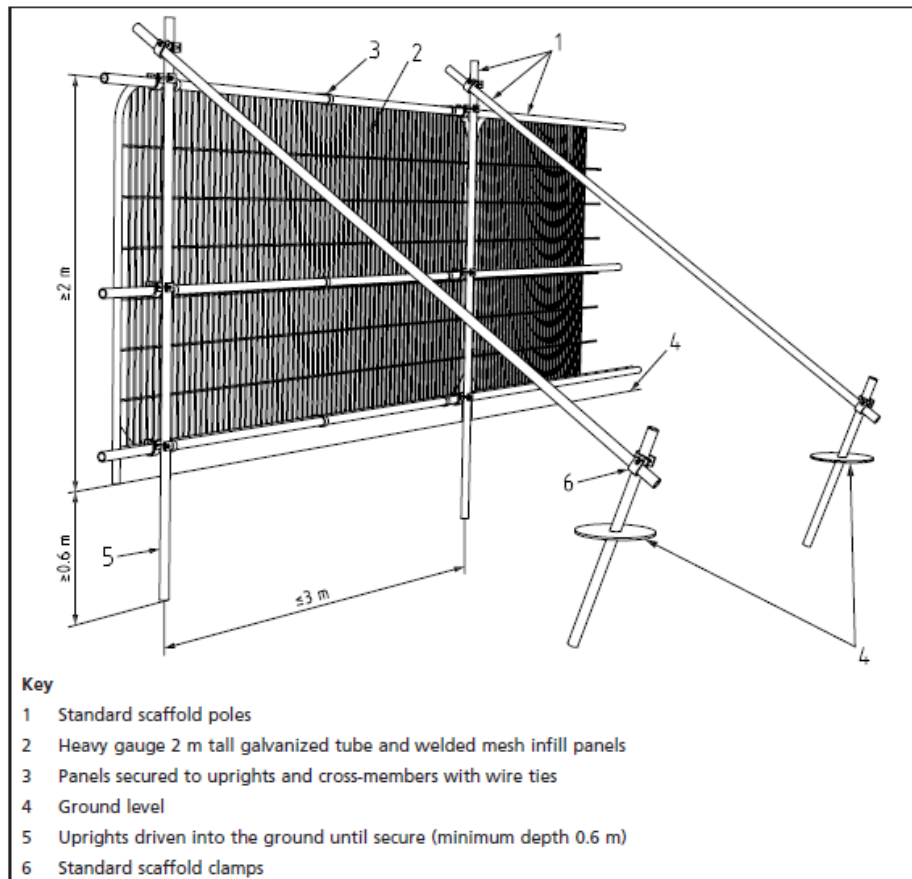
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Fox Studio, Much Wenlock, Shropshire TF13 6BL  
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## APPENDIX 4

### British Standard 5837:2012 Recommendations for Tree Protection Fencing

6.2.2.4 All-weather notices should be attached to the barrier with words such as:  
"CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

Figure 2 Default specification for protective barrier



## APPENDIX 5

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British Standard Trees in Relation to Construction – Recommendations BS 5837:2012  
Cascade chart for Tree Quality Tree Assessment



TREES FOR REMOVAL			
Category and Definition	Criteria		
<p><b>Category U</b></p> <p>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>	<p>- 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)</p> <p>- Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.</p> <p>- Trees infected with pathogens of significance to the health and/or safety of other trees nearby) e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality.</p>		
TREES TO BE CONSIDERED FOR RETENTION			
Category & Definition	1. Mainly arboricultural values	2. Mainly Landscape values	3. Cultural Values
<p><b>Category A</b></p> <p><b>Trees of high quality:</b> with an estimated remaining life expectancy of at least 40 years</p>	<p>Trees that are particularly good examples of their species especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</p>	<p>Trees, groups or woodlands of particular visual importance as arboricultural and or landscape features</p>	<p>Trees, groups or woodlands of significant conservation, historical commemorative or other value (e.g. veteran trees or wood-pastures)</p>
<p><b>Category B</b></p> <p><b>Those of moderate quality:</b> with an estimated remaining life expectancy of at least 20 years</p>	<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 <u>category A designation</u></p>	<p>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 area</p>	<p>Trees with clearly identifiable conservation or other cultural benefits</p>
<p><b>Category C</b></p> <p><b>Those of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm</p>	<p>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in the higher categories</p>	<p>Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.</p>	<p>Trees with no material conservation or other cultural value</p>

End of report