ARBORICULTURAL IMPACT ASSESSMENT

Postcombe & Lewknor
Solar Farm

May 2025

Barton Hyett Associates
Arboricultural Consultants

Summary table		
Site Name:	Postcombe & Lewknor Solar Farm	
Project reference:	6750	
Site Address:	M40, Lewknor, Postcombe, South Oxfordshire	
Nearest Postcode:	OX9 7EG	
Central Grid reference:	SU 71062 98864	
Local Planning Authority:	South Oxfordshire District Council	
Relevant planning policies:	South Oxfordshire Local Plan 2011-2035: ENV1 - Landscape & countryside; ENV2 - Biodiversity - Designated sites, priority habitats & species; ENV3 - Biodiversity; ENV5 - Green infrastructure in new developments; DES1 - Delivering high quality development; DES2 - Enhancing local character; DES9 - Renewable & low carbon energy.	
Statutory Controls:	**Tree Preservation Order**	**Conservation Area**
	TPO 02/1952 Chinnor Road, Aston Rowant.	No.
Soil Type: (Source: BGS online soils map © NERC 2025)	**Superficial/Drift**	**Bedrock**
	Deep-intermediate chalky clay to clahly loam with areas of sand to sandy loam and silty loam to sandy loam.	West Melbury Marly Chalk Formation - Chalk with Glauconitic Marl Member - Sandstone, glauconitic & Upper Greensand Formation - Siltstone and sandstone
Proposed site plan:	37.Lewknor_Tracker_S2_54.8 MWp Lewknor Planning Boundary 250502 Grid Route 250502	
Report author:	Ian Monger *BSc (Hons), MSc, MICFor, MArborA*	
Date of issue:	07.05.2025	

Arboricultural Association
ASSOCIATION
Professional Member
PR179

Institute of Chartered Foresters
registered

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REPORT CONTENTS:

1. INTRODUCTION

1.1. This report was prepared by Ian Monger, an arboriculturist with 18 years of experience and a professional member of the Institute of Chartered Foresters and the Arboricultural Association.

1.2. Barton Hyett Associates Ltd has been instructed by SLR Consulting Limited on behalf of Postcombe and Lewknor Solar Farm Limited to survey trees located at Postcombe & Lewknor Solar Farm ('the site') in accordance with the recommendations of British Standard 5837:2012 '*Trees in relation to design, demolition and construction - recommendations*'

1.3. The scope of the instruction was to inspect trees relevant to a planning application at the site and provide written advice on how they inform feasibility and design options. The instruction also required an assessment of the potential impact (the Arboricultural Impact Assessment) of the proposed development on the site's arboricultural resource to be undertaken.

2. SITE DESCRIPTION

2.1. The site is four arable fields located on either side of the M40 motorway to the south of the village of Postcombe and north of the village of Lewknor, approximately 4 miles south of Thame in Oxfordshire. The site includes a cable corridor running northwards along the southern side of the M40 to a substation located at Harlesford Road. The site area including the cable corridor is c. 97.5 ha. The approximate site boundary is shown in red in Figures 1 and 2.

2.2. The eastern part of the site is two roughly rectangular fields and a long narrow field. This area of the site is bounded by the village of Postcombe to the north and London Road (A40) to the east. The southern boundary meets the bridleway Nethercote Lane (277 33/30) to the south, with another large arable field beyond. The M40 motorway forms the western boundary. The fields have two agricultural accesses from London Road (A40) to the east and an open access in the southwestern corner to the field beyond.

2.3. The western part of the site is a single large field bounded by Salt Lane to the north, the M40 to the east, and Nethercote Lane bridleway to the south. The eastern boundary adjoins the grounds and paddocks of the detached dwelling Nethercote and further arable fields. This area of the site has agricultural access from Salt Lane to the north and Nethercote Lane in the southernmost corner.

2.4. Public footpath 277 7/10 crosses the eastern part of the site from Postcombe in the north to Nethercote Lane in the southwestern corner. There are no public rights of way within the western part of the site. Public footpath 102 1/10 follows the concrete track that runs parallel with the southern part of the cable corridor, from the Salt Lane motorway underpass and alongside the first two fields, before heading west.

2.5. The site's topography is influenced by the chalk hillock of Adwell Cop to the north of Salt Lane and the low gentle slope of the Chilterns Hills escarpment to the south. The land slopes down gently from the western and northern boundaries of the western field, at about 127m AOD, towards the northeast to about 110m AOD near the village of Postcombe in the northeast.

2.6. The site is rural, being located at the foot of the Chiltern Hills chalk escarpment, which rises steeply and dominates views to the south. The site's exposure has led to the planting of several semi-mature tree belts along the field boundaries, most of which are protected by Tree Preservation Order (TPO).

Figure 1: Approximate site boundary and cable corridor shown red.

Figure 2: Approximate site boundary and cable corridor shown red.

3. TREE SURVEY FINDINGS

3.1. The survey recorded 79 arboricultural features. These are summarised in terms of quality in accordance with the recommendations of BS 5837:2012 in Table 1 below and shown in more detail on the Tree Survey and Constraints Plan (**Section 2**) and within the Tree Survey Schedule (**Section 4**).

3.2. The first tree survey of the main solar site was undertaken in November 2022. Additional surveying of the cable route was carried out in February 2025 and the main site survey was updated at the same time.

Table 1: arboricultural features by type and quality category.

	Total	A - High quality trees whose retention is most desirable.	B - Moderate quality trees whose retention is desirable.	C - Low quality trees which could be retained but should not significantly constrain the proposal.	U - Very poor quality trees that should be removed unless they have high conservation value.
Trees	**43**	3	37	3	-
Groups	**36**	1	30	5	-
Woodland	**3**	1	2	-	-
Hedgerows	**22**	-	19	3	-
Total	**79**	**5**	**88**	**11**	**0**

4. KEY ARBORICULTURAL FEATURES

4.1. No ancient or veteran trees were identified in the survey. There is no ancient woodland affecting the site.

4.2. Tree Preservation Order (TPO) 02/1952 Chinnor Road. Rowant is a large TPO that protects 6 tree belts and a small woodland within the site, as well as tree belts to the south of Nethercote Lane, parklands within the villages of Aston Rowant and Kingston Blount to the east and areas of ancient woodland on the escarpment to the southeast.

4.3. In all, 13 trees, 12 groups and one woodland within this tree survey are protected as 7 woodlands (W1 - W7) of the TPO. The protected trees are shown hatched on the Tree Survey & Constraints plan in **Section 2** of this report and are referenced within the Tree Survey Schedule in **Section 4**. Aside from Group G4, no other trees along the cable connection route are protected by TPO.

4.4. Ash trees T41 and T42 (A3) are two old ash trees located along the proposed cable route. They are significantly decayed. They are not considered to be of an age/size to be veteran trees and irreplaceable habitats in relation to paragraph 193 of the National Planning Policy Framework (NPPF), they are of high quality because of their conservation value. The trees exhibit pronounced buttress roots, basal decay cavities, lichens and mosses and hollowed trunks. Ash T41 has three large cavity openings in its trunk, and ash T42 has a completely hollowed trunk forming a semi-circular shell. Both trees have retrenched but healthy crowns with deadwood.

5. PROPOSED DEVELOPMENT

5.1. The development proposal is for the installation of a solar PV array with a generating capacity of up to 49.9MW, ancillary cables and substation, and security fences, with accesses from the A40 and from Salt Lane, with grid connection to the existing substation at Harlesford Solar approximately 3km to the northwest of the site.

5.2. The construction of the proposed development is expected to take up to 14 months and is anticipated to commence in 2028 due to grid availability.

5.3. There is to be no permanent operational lighting within the proposed development.

5.4. The proposed site layout is shown on the proposed site plan 37.Lewknor_Tracker_S2_54.8 MWp.

6. IMPACT ASSESSMENT

6.1. The impact assessment considers the effects of any tree loss required to implement the proposed development as well as any reasonably foreseeable, potentially damaging activities proposed in the vicinity of retained trees. This is undertaken with reference to BS 5837:2012 and considering the nature of the proposed development. Actual and potential impacts can include tree removal to facilitate the development, soil compaction in close proximity to trees, and direct impact damage to the canopy and roots of retained trees from construction activities. A summary of anticipated impacts resulting from the proposed development is provided below.

Trees to be removed

6.2. One early-mature sycamore T18 (B1) would be removed to provide the requisite visibility splay for the site access from London Road. Single sections of hedgerows H17 and H18 (B2) would be removed and replanted for the cable corridor. These removals are shaded red on the Tree Retention and Removal Plan in **Section 3**.

6.3. Generally, the cable connection from the solar site to the substation will be trenched underground within a trench 2m wide and 1-1.2m deep. Assuming a working space width of 4 metres, the cable corridor will require 4m width sections of moderate-quality hedgerows H17 and H18 (B2) to be removed. These removals will be replanted with appropriate species shortly after completion of the installation work.

6.4. Two further sections of hedgerows would be translocated for the access from London Road. Approximately 143m of hedgerow H11 and 139m of hedgerow H12 (B2) would be translocated further back into the site, shown shaded orange on the Tree Retention and Removal Plan in **Section 3**. These hawthorn and blackthorn hedgerows are of low woody species diversity, but their translocation would avoid any net loss and is likely to be very successful. A working method for the preparation of the hedgerow sections, translocation and aftercare will need to be devised.

6.5. For the access from Salt Lane, it is unlikely that any trees of hedgerow will need to be removed. The tree survey features in this location were plotted using aerial photography and without a detailed topographical survey, leading to an apparent mismatch between the site layout and the tree survey. However, it is most likely that only the crowns of semi-mature ash T5 and end sections of semi-mature tree belts G3 and G4 will need to be cut back to provide sufficient height clearance for vehicles.

6.6. Elsewhere, the cable will be installed beneath roads and adjacent trees/hedgerows using trenchless directional drilling, thereby avoiding any removals. This method will be utilised at protected tree group G4, woodland W3 and hedgerow H22. There is ample space to locate launch and receiver pits outside of the Root Protection Areas (RPAs) of the retained trees and hedgerows.

6.7. The canopy of an eastern section of the semi-mature tree belt G4 is likely to need to be cut back to provide clearance from the new substation but would have a negligible impact on their health and longevity.

Impacts on retained trees

6.8. The proposal for a solar farm is a fairly non-invasive form of development. The solar tables sit above ground, with only minor below-ground disturbance. The layout of the solar PV areas has been designed to avoid the RPAs of any retained tree.

6.9. Regular disturbance of the soil in the fields, by ploughing and tilling close to trees over many years, means that field boundary trees will have limited root development in the surface soil layer, further reducing the likelihood that the proposed development would negatively affect them. The construction of the substation to the south of tree belt group G4 would have a negligible impact.

6.10. Overall, the cessation of agricultural cultivation of the fields will provide a significant longer-term ecological benefit for the site's trees and hedgerows and the soil microbiome.

6.11. The separate Landscape Mitigation plan shows that substantial new hedgerow and tree planting is proposed. New hedgerow planting along the motorway boundaries and along the public footpaths will screen views. New hedgerows and woodland planting will filter views from the village of Postcombe. The translocated hedgerows at the A40 London Road access will be infilled with new planting to strengthen them. In addition, new tree planting along the southern, western and northwestern boundaries will infill gaps and further strengthen screening. The new tree and hedgerow planting will deliver a significant net gain in tree canopy cover and hedgerow species diversity at the site, with an increase in future landscape contribution and enhanced connectivity.

6.12. The proposal is feasible from an arboricultural perspective, and if carefully implemented according to agreed on-site working methods there would be no negative impact on the retained trees. Overall, the cessation of agricultural cultivation will provide a longer-term ecological benefit for the site.

7. TREE PROTECTION MEASURES

7.1. Previous experience with solar farm construction is that new access tracks are installed first before site perimeter fencing is installed to provide construction site security during the installation of the solar tables and cabling.

7.2. Given the light nature of the development and the regular arable cultivation of the site's fields, the new perimeter security fencing can therefore adequately serve as physical protection for the trees and hedgerows for much of the site. To achieve this, the fencing can be 'rolled out' on a field-by-field basis ahead of the solar table installation.

7.3. For good quality trees along the cable route, and in other sensitive locations during access track construction, additional temporary protection barriers can be provided to exclude activity from the RPAs of trees, such as at ash trees T41 and T42.

7.4. The final locations of temporary barriers will need to take into account the phasing of construction and contractor access requirements and be detailed within an Arboricultural Method Statement (AMS).

8. HEADS OF TERMS FOR AN ARBORICULTURAL METHOD STATEMENT (AMS)

8.1. BS 5837:2012 (Figure 1) recommends that detailed/technical design of tree protection and arboricultural methodologies should be resolved and finalised following the approval of the feasibility of a scheme by the Local Planning Authority.

8.2. Annex B and Table B.1 of BS 5837:2012, an informative, advises that Arboricultural Method Statement (AMS) Heads of Terms are a sufficient level of information in order to deliver tree-related information into the planning system. The table also advises that a detailed AMS might reasonably be required as a 'reserved matter' or planning condition.

8.3. In relation to the site, it is anticipated that arboricultural working methods are likely to be quite straightforward. A brief summary of the principles of tree protection on development sites is included in **Section 7**.

8.4. A draft, 'Heads of Terms' for an AMS is set out below:

- Project arboriculturist – schedule of monitoring and supervision to be agreed upon with the applicant and LPA
- Locations of trees protected by TPO and legal requirements in respect of them
- Pre-commencement site meeting - to be attended by the project arboriculturist, client, site manager and other relevant parties.
- Tree and hedgerow section removals and facilitation pruning - as shown on the Tree Retention and Removal Plan (TRRP)
- Method and timing for translocation of sections of hedgerows H11 and H12, including preparation of hedgerows and receptor locations and aftercare to ensure establishment.
- Erection of tree protection barriers and temporary ground protection as may be required as per the Tree Protection Plan (TPP)
- Overview of method to be used and precautions to be followed during directional drilling of cable at protected tree group G4, woodland W3 and hedgerow H22
- Site preparation and groundwork - no access for any machinery within the fenced tree protection areas.
- Main construction phase - all tree protection measures shall remain in situ and intact for the duration of the construction phase
- Removal of tree protection barriers - only to occur following approval of site conditions by the project arboriculturist
- Final landscaping including tree & hedgerow planting.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1. Subject to the implementation of the advice contained within this report the proposed development is acceptable from an arboricultural perspective. The proposal for directional drilling of the cable corridor at protected tree group G4, woodland W3 and hedgerow H22, and the translocation of sections of hedgerows H11 and H12, means that only one tree and two sections of hedgerow are proposed to be removed and would be replaced by new tree and hedgerow planting elsewhere on site. No trees protected by the TPO are proposed for removal.

9.2. If carried out according to a working method for preparation, timing and aftercare, the translocation of the hedgerow sections further into the site is likely to be very successful.

9.3. Regular ploughing of the fields means that the construction of the substation to the south of tree belt group G4 and installation work elsewhere would have a negligible impact on the health and longevity of the trees. Overall, the cessation of ploughing of the fields and a less intensive management regime for many of the hedgerows will provide a longer-term ecological benefit for the site.

9.4. The new perimeter security fencing can adequately serve as physical protection for the trees and hedgerows for much of the site. To achieve this, the fencing can be 'rolled out' on a field-by-field basis ahead of the solar table installation. Additional temporary protection barriers can be provided in other sensitive locations, such as at ash trees T41 and T42.

9.5. A detailed AMS and finalised Tree Protection Plan will need to be produced that takes into account all approved aspects of the scheme, as well as the work schedule, phasing and final access requirements. Where the feasibility of a scheme has been agreed upon by the Local Planning Authority, this detail can be agreed upon and submitted later to comply with a pre-commencement planning condition (by agreement with the applicant).

Ian Monger *BSc (Hons), MSc, MICFor, MArborA*
Senior Arboriculturist

IMAGES FROM THE TREE SURVEY

POSTCOMBE & LEWKNOR SOLAR FARM

PROJECT NO: 6750

SURVEYOR: IAN MONGER

CLIENT: SLR CONSULTING LTD.

IMAGE DATES: 24/11/2022 & 21/02/2025

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IMAGE 1: View across the western parcel from the Salt Lane access, looking southeast from the existing access.

IMAGE 2: View along the eastern boundary of the western parcel with the M40 motorway, looking southeast.

IMAGE 3: View of the access to the north of Salt Lane and protected tree group G4 beyond where the cable will be directionally drilled below the trees.

IMAGE 4: Example of the protected trees within the plantations to the south of Salt Lane.

IMAGE 5: The northern edge of tree group G25 in the south of the western parcel, looking northeast.

IMAGE 6: View towards the eastern site boundary with the A40 and protected tree group G16, looking north.

IMAGES FROM THE TREE SURVEY

POSTCOMBE & LEWKNOR SOLAR FARM

PROJECT NO: 6750

SURVEYOR: IAN MONGER

CLIENT: SLR CONSULTING LTD.

IMAGE DATES: 24/11/2022 & 21/02/2025

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IMAGE 7: View along protected tree group G12 in the eastern parcel, looking southeast.

IMAGE 8: The public foopath from Postcombe entering from the north, looking southeast.

IMAGE 9: Protected woodland group W1, looking west.

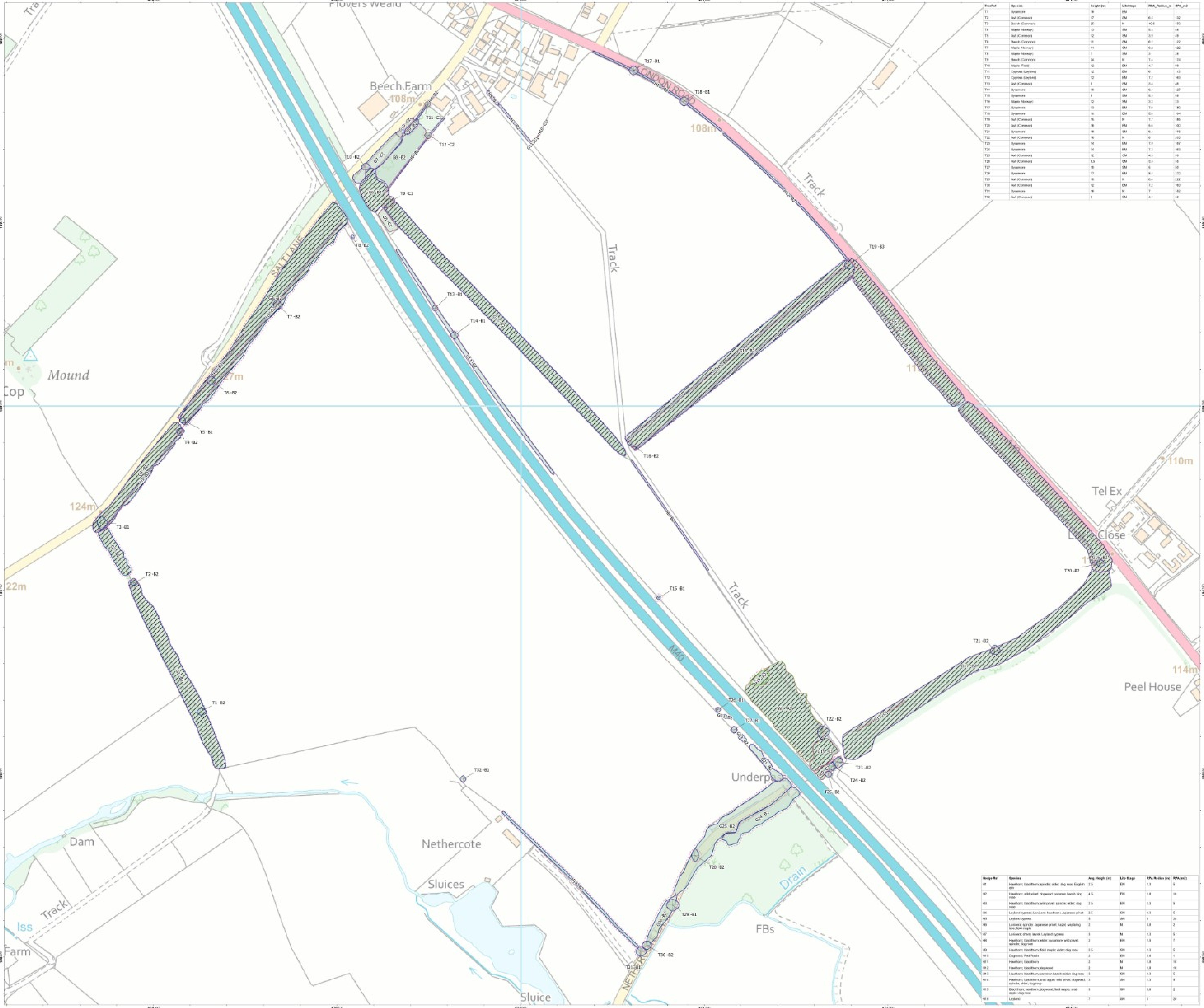
IMAGE 10: High-quality ashes T41 and T42 along the cable route, looking northwest.

IMAGE 11: Detail of high-quality ashes T41 and T42, looking southeast.

IMAGE 12: Plantation group G27 along the cable route, looking northeast.

SECTION 1

SECTION 2: TREE SURVEY & CONSTRAINTS PLAN



TreeRef	Species	Height (m)	LifeStage	RPA_Radius_m	RPA_m2
T1	Sycamore	18	EM		
T2	Ash (Common)	17	OM	6.5	132
T3	Beech (Common)	25	M	10.4	330
T4	Maple (Norway)	13	SM	5.3	88
T5	Ash (Common)	12	SM	3.9	48
T6	Beech (Common)	11	OM	6.2	122
T7	Maple (Norway)	14	SM	6.2	122
T8	Maple (Norway)	7	SM	3	28
T9	Beech (Common)	24	M	7.4	174
T10	Maple (Field)	12	EM	4.7	69
T11	Cypress (Leyland)	12	EM	6	113
T12	Cypress (Leyland)	12	EM	7.2	163
T13	Ash (Common)	8	OM	3.8	45
T14	Sycamore	18	OM	6.4	127
T15	Sycamore	8	SM	5.3	88
T16	Maple (Norway)	12	SM	3.2	33
T17	Sycamore	13	EM	7.6	180
T18	Sycamore	18	EM	5.8	104
T19	Ash (Common)	15	M	7.7	186
T20	Ash (Common)	18	EM	5.6	100
T21	Sycamore	18	OM	6.1	165
T22	Ash (Common)	18	M	8	203
T23	Sycamore	14	EM	7.9	197
T24	Sycamore	14	EM	7.2	163
T25	Ash (Common)	12	OM	4.3	58
T26	Ash (Common)	8.5	OM	3.3	35
T27	Sycamore	18	SM	5	80
T28	Sycamore	17	EM	8.4	222
T29	Ash (Common)	18	M	8.4	222
T30	Ash (Common)	12	EM	7.2	163
T31	Sycamore	18	M	7	152
T32	Ash (Common)	9	SM	3.7	42

Hedge Ref	Species	Avg. Height (m)	Life Stage	RPA Radius (m)	RPA (m2)
H1	Hawthorn; blackthorn; spindle; elder; dog rose; English elm	2.5	EM	1.3	5
H2	Hawthorn; wild privet; dogwood; common beech; dog rose	4.5	EM	1.8	10
H3	Hawthorn; blackthorn; wild privet; spindle; elder; dog rose	2.5	EM	1.3	5
H4	Leyland cypress; Lonicera; hawthorn; Japanese privet	2.5	SM	1.3	5
H5	Leyland cypress	4	SM	3	28
H6	Lonicera; spindle; Japanese privet; hazel; wayfaring tree; field maple	2	M	0.8	2
H7	Lonicera; cherry laurel; Leyland cypress	3	M	1.3	5
H8	Hawthorn; blackthorn; elder; sycamore; wild privet; spindle; dog rose	2	EM	1.6	7
H9	Hawthorn; blackthorn; field maple; elder; dog rose	2.5	SM	1.3	5
H10	Dogwood; Red Robin	2	EM	0.6	1
H11	Hawthorn; blackthorn	2	M	1.8	10
H12	Hawthorn; blackthorn; dogwood	2	M	1.8	10
H13	Hawthorn; blackthorn; common beech; elder; dog rose	3	SM	1.3	5
H14	Hawthorn; blackthorn; crab apple; wild privet; dogwood; spindle; elder; dog rose	3	SM	1.3	5
H15	Blackthorn; hawthorn; dogwood; field maple; crab apple; dog rose	3	SM	0.8	2
H16	Leyland	7	SM	3	28

KEY

Category A Tree - High quality
(Retention highly desirable)

Category A - Hedgerow, Group, Woodland - High quality
(Retention highly desirable)

Category B Tree - Moderate quality
(Retention desirable)

Category B - Hedgerow, Group, Woodland - Moderate quality
(Retention desirable)

Category C Tree - Low quality
(May be retained but should not constrain development)

Category C - Hedgerow, Group, Woodland - Low quality
(May be retained but should not constrain development)

Category U Tree - Very low quality
(Mostly unsuitable for retention)

Category U - Hedgerow, Group, Woodland - Very low quality
(Mostly unsuitable for retention)

Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability

Shrub mass/offsite tree/out of scope (OOS)

★ Tree/Group/Hedgerow not on topographical survey. Location given is an estimate

Statutory Protection

Tree Preservation Order (TPO): Trees under statutory protection.
No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works.
Please see attached advice and guidance.

WoodRef	Species	Height Range (m)	LifeStage	RPA Radius (m)
W1	Sycamore; horse chestnut; common ash; common beech; spindle; hawthorn	3-16	M	8

Group Ref	Species	Height Range (m)	LifeStage	RPA Radius (m)	RPA (m2)
G1	Common ash; wild cherry; sycamore; hawthorn; English oak	4-17	SM	5.4	92
G2	Common ash; wild cherry; sycamore; Norway maple; hawthorn; blackthorn	3-15	SM	6.4	127
G3	Common ash; Norway maple; wild cherry; sycamore; common beech; wych elm; hawthorn; wild plum	4-15	SM	5.4	92
G4	Field maple; hawthorn; sycamore; common beech; holly; wild cherry; hazel; wayfaring tree; wild privet; elder; spindle; blackthorn	3-18	SM	6.4	127
G5	Norway spruce	2.5-3	Y	1.6	8
G6	Common beech; wild cherry; common ash; Leyland cypress; hawthorn	4-25	M	7.4	172
G7	Field maple; hawthorn; holly	2-15	SM	3.6	41
G8	Norway maple; Scots pine; wild cherry; Leyland cypress; horse chestnut; common beech; common walnut; holm oak; sycamore; Turkey oak; field maple	3-15	SM	3.3	35
G9	Leyland cypress	~12	EM	4.8	72
G10	Blackthorn; field maple; sycamore; [illegible] Leylandii	3-7	EM	1.3	5
G11	Cherry laurel; Leyland cypress; hazel; snowberry	2-6	SM	1.7	9
G12	Common ash; sycamore; Norway maple; field maple; wild cherry; common beech; hawthorn; elder; blackthorn; wild privet; dog rose	3-15	SM	5.4	100
G13	Hawthorn; wild cherry; dog rose; Norway maple	2-8	SM	2.4	18
G14	Common ash; Norway maple; wild cherry; field maple; common beech; sycamore; hawthorn	2-17	SM	5.3	88
G15	Common ash; common beech; field maple; Norway maple; wild cherry; sycamore; blackthorn; common yew; wild privet	3-15	SM	4.2	55
G16	Common ash; common beech; field maple; Norway maple; wild cherry; sycamore; horse chestnut; hawthorn; wild privet	3-15	SM	4.2	55
G17	Common ash; sycamore; common beech; wild cherry; Norway maple; field maple; blackthorn; spindle; blackthorn; hazel; elder; dogwood	3-16	SM	4.8	72
G18	Horse chestnut	~17	M	10.5	346
G19	Common ash; English elm; sycamore; field maple; elder; spindle	3-12	Y	2.9	26
G20	Common ash; sycamore; field maple; English elm; hawthorn	4-12	Y	2.8	24
G21	Sycamore; birch; hawthorn; common ash; blackthorn	4-11	SM	4.1	53
G22	Common ash	7-8.5	Y	2.6	22
G23	Common ash; sycamore	3-14	SM	4.8	72
G24	Common ash; sycamore; whitebeam; field maple; hybrid black poplar; Norway maple	3-16	SM	5.4	92
G25	Sycamore; field maple; common oak; English elm; horse chestnut; hazel	3-20	M	7.4	172
G26	Common ash; field maple; English elm; horse chestnut; crab apple; blackthorn; hawthorn	4-15	M	6.6	137

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 45 90 180 Meters

PROJECT TITLE

Lewknor Solar (5365)

DRAWING TITLE

Tree Survey Plan

SCALE		DRAWING NUMBER	
Scale: 1:2,400 @ A1			BHA_5365_01

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IM	-	-	28/11/2022

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

CLIENT

ITP Energised

CREDITS

Barton Hyett Associates
Arboricultural Consultants

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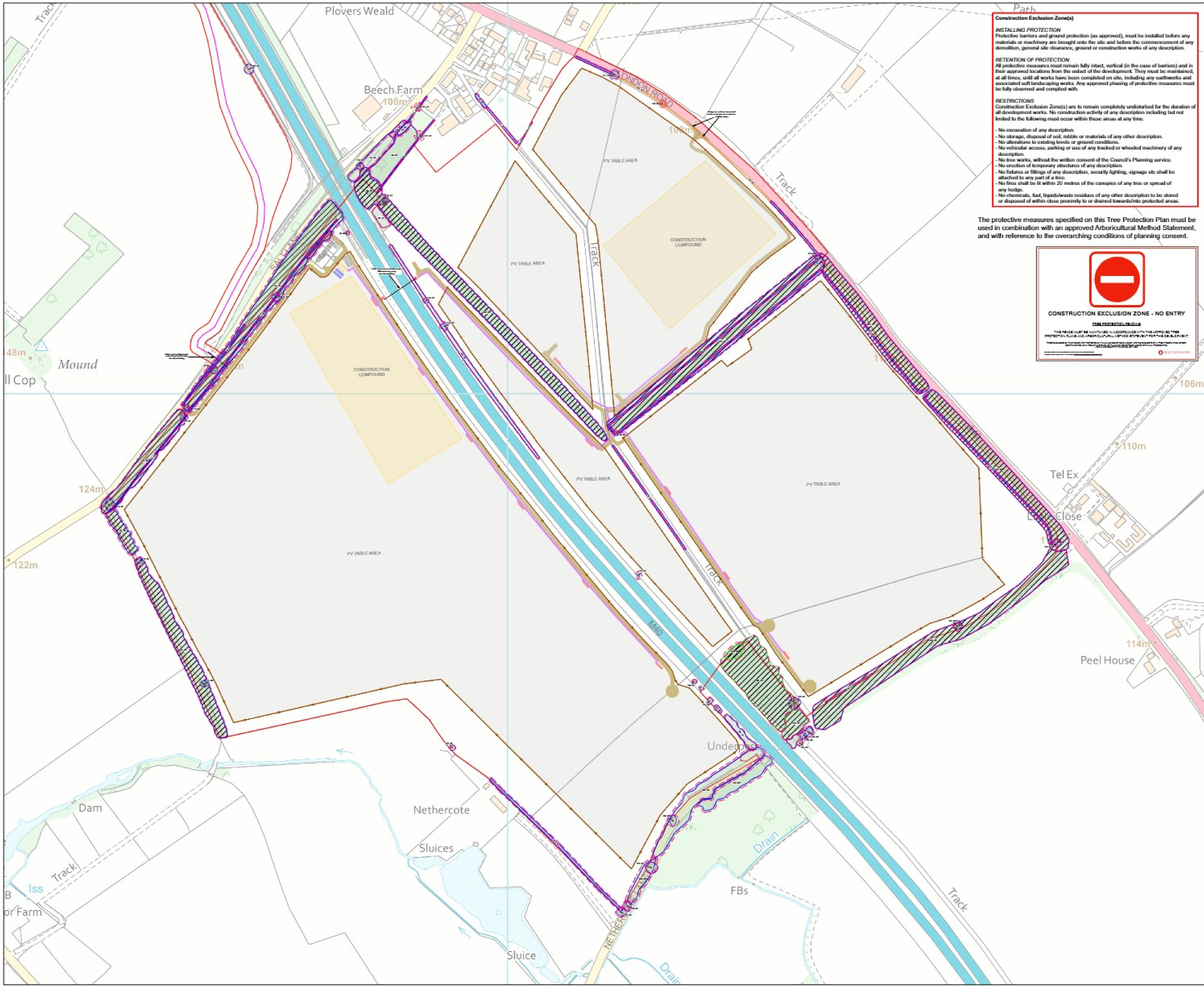
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN

SECTION 3: COMBINED TREE RETENTION/REMOVAL & PROTECTION PLAN



Construction Exclusion Zone(s)

INSTALLING PROTECTION
Protective barriers and ground protection (as approved), must be installed before any materials or machinery are brought onto the site and before the commencement of any demolition, general site clearance, ground or construction works of any description.

RETENTION OF PROTECTION
All protective measures must remain fully intact, vertical (in the case of barriers) and in their approved locations from the outset of the development. They must be maintained, at all times, until all works have been completed on site, including any earthworks and associated soft landscaping works. Any approved phasing of protective measures must be fully observed and complied with.

RESTRICTIONS
Construction Exclusion Zone(s) are to remain completely undisturbed for the duration of all development works. No construction activity of any description including but not limited to the following must occur within these areas at any time.

- No excavation of any description.
- No storage, disposal of soil, rubble or materials of any other description.
- No alterations to existing levels or ground conditions.
- No vehicular access, parking or use of any tracked or wheeled machinery of any description.
- No tree works, without the written consent of the Council's Planning service.
- No erection of temporary structures of any description.
- No fixtures or fittings of any description, security lighting, signage etc shall be attached to any part of a tree.
- No fires shall be lit within 20 metres of the canopies of any tree or spread of any hedge.
- No chemicals, fuel, liquids/waste residues of any other description to be stored or disposed of within close proximity to or drained towards/into protected areas.

The protective measures specified on this Tree Protection Plan must be used in combination with an approved Arboricultural Method Statement, and with reference to the overarching conditions of planning consent.

CONSTRUCTION EXCLUSION ZONE - NO ENTRY

TREE PROTECTION FENCING

THE FENCE MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED TREE PROTECTION PLANS AND ARBORICULTURAL METHOD STATEMENT FOR THIS DEVELOPMENT.

KEY

Category A Tree - High quality (Retention highly desirable)

Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)

Category B Tree - Moderate quality (Retention desirable)

Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)

Category C Tree - Low quality (May be retained but should not constrain development)

Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)

Category U Tree - Very low quality (Mostly unsuitable for retention)

Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)

Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability

Shrub mass/offsite tree/out of scope (OOS)

Statutory Protection

Tree Preservation Order (TPO)
Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

Tree / Hedgerow / Group to be removed

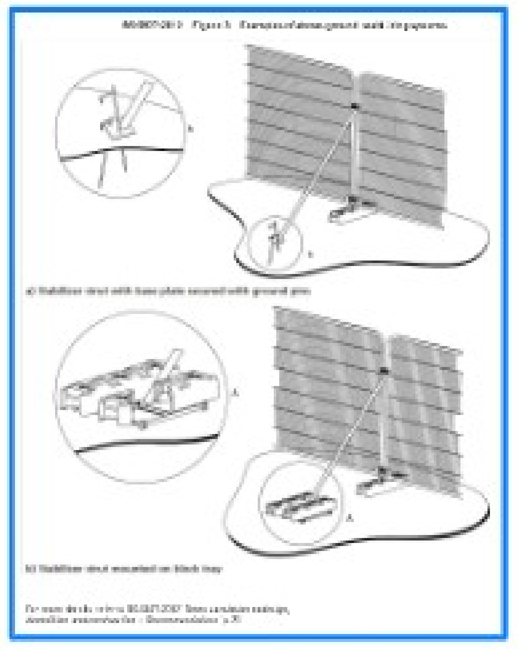
Approximate lengths of hedgerows H11 & H12 to be translocated further into the site to allow for visibility splays at the A40 London Road access.

Protection Measures

Permanent site security fencing to serve as tree protection for the main solar site and "rolled out" ahead of other installation work on a field-by-field basis.

Additional temporary Tree Protection Barriers installed in the most sensitive areas, such as during installation of the cable route.

Approximate length of cable route to be installed using trenchless directional drilling to avoid tree and hedgerow removal. Launch & receiver pits to be located outside of Root Protection Areas.



GRID NORTH

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

0 50 100 150 200 250
Meters

PROJECT TITLE	**Postcombe & Lewknor Solar Farm**
DRAWING TITLE	Tree Retention/Removal & draft Protection Plan
SCALE	1:3500 @ A2
DRAWING NUMBER	BHA_6750_02
DRAWN BY	IM
APPROVED BY	RH
REVISION	A
SHEET	1/2
DATE	07/05/2025
LAYOUT USED WITHIN DRAWING	37.Lewknor_Tracker_S2_54.8 MWp
CLIENT	SLR Consulting Ltd
COORDINATE SYSTEM / DATUM	British National Grid / Newlyn Datum (AOD)

Barton Hyett Associates
Arboricultural Consultants
Tel: 01386 576161 Website: www.barton-hyett.co.uk
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN

Construction Exclusion Zone(s)

INSTALLING PROTECTION
Protective barriers and ground protection (as approved), must be installed before any materials or machinery are brought onto the site and before the commencement of any demolition, general site clearance, ground or construction works of any description.

RETENTION OF PROTECTION
All protective measures must remain fully intact, vertical (in the case of barriers) and in their approved locations from the outset of the development. They must be maintained, at all times, until all works have been completed on site, including any earthworks and associated soft landscaping works. Any approved phasing of protective measures must be fully observed and complied with.

RESTRICTIONS
Construction Exclusion Zone(s) are to remain completely undisturbed for the duration of all development works. No construction activity of any description including but not limited to the following must occur within these areas at any time.

- No excavation of any description.
- No storage, disposal of soil, rubble or materials of any other description.
- No alterations to existing levels or ground conditions.
- No vehicular access, parking or use of any tracked or wheeled machinery of any description.
- No tree works, without the written consent of the Council's Planning service.
- No erection of temporary structures of any description.
- No fixtures or fittings of any description, security lighting, signage etc shall be attached to any part of a tree.
- No fires shall be lit within 20 metres of the canopies of any tree or spread of any hedge.
- No chemicals, fuel, liquids/waste residues of any other description to be stored or disposed of within close proximity to or drained towards/into protected areas.

The protective measures specified on this Tree Protection Plan must be used in combination with an approved Arboricultural Method Statement, and with reference to the overarching conditions of planning consent.

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (10*A) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)

Statutory Protection
Tree Preservation Order (TPO) 02/1952: trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

- Tree / Hedgerow / Group to be removed
- Approximate lengths of hedgerows H11 & H12 to be translocated further into the site to allow for visibility splays at the A40 London Road access

Protection Measures

- Permanent site security fencing to serve as tree protection for the main solar site and 'rolled out' ahead of other installation work on a field-by-field basis
- Additional temporary Tree Protection Barriers installed in the most sensitive areas, such as during installation of the cable route
- Approximate length of cable route to be installed using trenchless directional drilling to avoid tree and hedgerow removal. Launch & receiver pits to be located outside of Root Protection Areas

N
GRID NORTH
0 50 100 150 200 250
Meters

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PROJECT TITLE
Postcombe & Lewknor Solar Farm

DRAWING TITLE
Tree Retention/Removal & draft Protection Plan

SCALE		DRAWING NUMBER		
1:5000 @ A2		BHA_6750_02		
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
IM	RH	A	2/2	07/05/2025

LAYOUT USED WITHIN DRAWING **37.Lewknor_Tracker_S2_54.8 MWp**

CLIENT **SLR Consulting Ltd**

COORDINATE SYSTEM / DATUM **British National Grid / Newlyn Datum (AOD)**

Barton Hyett Associates
Arboricultural Consultants
Tel: 01386 576161 Website: www.barton-hyett.co.uk
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

TREE SURVEY SCHEDULE

POSTCOMBE & LEWKNOR SOLAR FARM

PROJECT NO: 6750

SURVEYOR: IAN MONGER

CLIENT: SLR CONSULTING LTD.

SURVEY DATE: 21/02/2025

Barton Hyett
Arboricultural Consultants

INDIVIDUAL TREES

Ref	Species	On/off site	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	TPO?
T1	Sycamore	On	18.0	2	-	610	4.5-9.5-4.5-4.5	3.0	1.0	E	EM	Two stems from 1m.	Good	Good	40+	**B2**	7.3	168	Yes - W1
T2	Ash (Common)	On	17.0	1	-	540	6.5-5.5-3.0-4.5	4.0	3.5	E	SM	Some epicormic shoots on branches.	Good	Good	20+	**B2**	6.5	132	Yes - W1
T3	Beech (Common)	On	25.0	1	-	880	9.0-9.0-8.0-5.0	4.0	3.0	-	M	Asymmetrical crown. Deadwood.	Good	Good	40+	**B1**	10.6	350	Yes - W2
T4	Maple (Norway)	On	13.0	1	-	440	3.0-6.5-6.5-4.0	4.0	2.5	E	SM	Included bark primary stem union at 2.5m.	Good	Fair	20+	**B2**	5.3	88	Yes - W2
T5	Ash (Common)	On	12.0	1	-	330	3.5-3.5-4.5-4.5	5.0	2.5	W	SM	No significant visible defects.	Good	Good	20+	**B2**	3.9	49	Yes - W2
T6	Beech (Common)	On	11.0	3	-	520	6.0-6.0-6.0-6.0	5.5	4.5	S	SM	No significant visible defects.	Good	Good	40+	**B2**	6.2	122	Yes - W2
T7	Maple (Norway)	On	14.0	1	-	520	5.0-6.0-8.0-5.0	6.0	2.0	S	SM	No significant visible defects.	Good	Good	40+	**B2**	6.2	122	Yes - W2
T8	Maple (Norway)	Off	7.0	1	-	250	3.5-3.0-3.0-1.5	3.0	1.5	-	SM	Flailed on field side.	Good	Good	40+	**B2**	3.0	28	-
T9	Beech (Common)	Off	24.0	1	-	620	5.0-8.5-6.5-6.0	4.0	6.0	E	M	Kretzschmaria deusta fungal bodies at trunk base; indicating potential for root system decay and windthrow. Also observed on another nearby beech. Detailed assessment should be carried out and other beeches in group inspected; given proximity to motorway.	Poor	Fair	10+	**C1**	7.4	174	Yes - W3
T10	Maple (Field)	Off	12.0	1	-	390	6.5-6.0-3.0-6.0	5.0	0.5	-	EM	Largest tree in group.	Good	Good	40+	**B2**	4.7	69	-
T11	Cypress (Leyland)	Off	12.0	1	Yes	500	4.0-4.0-4.0-4.0	3.0	2.5	-	EM	Outgrown hedge tree.	Good	Good	20+	**C1**	6.0	113	-
T12	Cypress (Leyland)	Off	12.0	1	Yes	600	4.0-5.0-5.0-5.0	3.0	0.5	-	EM	No significant visible defects.	Good	Good	20+	**C2**	7.2	163	-
T13	Ash (Common)	Off	9.0	2	-	320	4.0-4.0-4.0-4.0	2.5	2.5	-	SM	Motorway verge tree.	Good	Good	20+	**B1**	3.8	46	-
T14	Sycamore	Off	10.0	7	-	530	5.0-5.0-5.0-5.0	0.5	1.0	-	SM	Motorway verge tree.	Good	Good	40+	**B1**	6.4	127	-
T15	Sycamore	Off	8.0	6	-	440	2.5-2.5-2.5-2.5	1.0	1.0	-	SM	Motorway verge tree.	Good	Good	40+	**B1**	5.3	88	-
T16	Maple (Norway)	On	12.0	1	-	270	1.0-2.0-4.5-3.0	3.0	2.5	SE	SM	Largest diameter tree at west end of group.	Good	Good	40+	**B2**	3.2	33	Yes - W4
T17	Sycamore	On	13.0	3	Yes	630	6.0-7.0-6.0-6.0	4.0	2.5	SE	EM	Growing in hedgerow.	Good	Good	40+	**B1**	7.6	180	-
T18	Sycamore	On	10.0	1	Yes	480	6.0-7.0-6.5-5.0	3.0	2.5	-	EM	Growing in hedgerow.	Good	Good	40+	**B1**	5.8	104	-

TREE SURVEY SCHEDULE

POSTCOMBE & LEWKNOR SOLAR FARM

PROJECT NO: 6750

SURVEYOR: IAN MONGER

CLIENT: SLR CONSULTING LTD.

SURVEY DATE: 21/02/2025

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	TPO?
T19	Ash (Common)	On	15.0	2	-	640	9.0-6.0-4.5-4.5	3.0	3.0	N	M	Twin-stemmed. Marked pink for felling. Basal split included bark wound (stem removed). Pseudoinonotus fungal brackets and bark fissures. Dry crevice/cavity at 4m. Water pool at base. Good habitat value.	Good	Fair	20+	**B3**	7.7	185	Yes - W4
T20	Ash (Common)	On	18.0	1	-	470	6.5-8.0-4.0-3.5	8.0	7.0	S	EM	Largest tree in group.	Good	Good	20+	**B2**	5.6	100	Yes - W5
T21	Sycamore	On	18.0	1	-	510	9.5-7.5-3.5-6.5	3.0	2.5	E	SM	Asymmetrical crown.	Good	Good	40+	**B2**	6.1	118	Yes - W6
T22	Ash (Common)	On	18.0	1	-	670	6.0-11.5-11.5-5.0	9.5	4.0	S	M	Branch fracture wounds.	Good	Good	20+	**B2**	8.0	203	Yes - W7
T23	Sycamore	Off	14.0	7	-	660	6.5-8.0-8.0-5.5	3.0	1.5	-	EM	Multi-stemmed.	Good	Good	40+	**B2**	7.9	197	-
T24	Sycamore	Off	14.0	5	-	600	4.5-3.5-6.5-5.5	1.5	2.0	-	EM	Multi-stemmed.	Good	Good	40+	**B2**	7.2	163	-
T25	Ash (Common)	Off	12.0	1	-	360	3.0-5.0-5.5-4.5	3.0	1.5	S	SM	No significant visible defects.	Good	Good	20+	**B2**	4.3	59	-
T26	Ash (Common)	Off	8.5	1	-	280	3.0-4.5-3.5-2.5	1.0	1.5	S	SM	Motorway verge tree.	Good	Good	20+	**B1**	3.3	35	-
T27	Sycamore	Off	10.0	3	-	420	4.5-4.5-4.5-3.5	5.5	2.0	N	SM	Motorway verge tree. Flailed on field side.	Good	Good	40+	**B1**	5.0	80	-
T28	Sycamore	On	17.0	4	-	700	9.0-5.0-8.0-5.0	4.5	4.0	N	EM	Growing on bank between bridleway and field.	Good	Good	40+	**B2**	8.4	222	-
T29	Ash (Common)	On	18.0	1	Yes	700	8.0-9.5-8.0-8.5	5.0	4.0	-	M	Ivy on trunk.	Good	Good	20+	**B1**	8.4	222	-
T30	Ash (Common)	On	12.0	1	-	600	6.5-6.0-5.5-6.5	5.0	2.5	SW	EM	Ivy on trunk.	Good	Good	20+	**B2**	7.2	163	-
T31	Sycamore	Off	16.0	1	-	580	7.0-9.0-5.5-5.5	5.5	3.0	N	M	Growing on bank. Ivy and basal shoots.	Good	Good	40+	**B1**	7.0	152	-
T32	Ash (Common)	On	9.0	1	-	340	4.5-4.0-4.0-4.0	3.0	2.0	W	SM	Lower branches flailed.	Good	Good	20+	**B1**	4.1	52	-
T33	Ash (Common)	On	13.0	2	-	590	8.0-7.0-7.0-7.0	3.5	3.0	S	EM	Concrete track lifted. Field ploughed near tree.	Good	Good	20+	**B1**	7.1	157	-
T34	Apple	On	9.0	4	-	610	5.5-6.0-5.0-6.0	1.5	2.0	SE	M	Good form.	Good	Good	40+	**B1**	7.3	168	-
T35	Walnut (Common)	On	8.5	1	-	350	4.5-4.5-4.5-5.0	2.0	1.5	-	SM	Good form.	Good	Good	40+	**B1**	4.2	55	-
T36	Hawthorn	On	6.5	6	-	370	4.0-4.0-3.0-3.5	2.5	2.0	-	M	Mechanical stem wounds from passing vehicles.	Good	Good	20+	**B1**	4.4	62	-
T37	Oak (English)	Off	10.0	2	-	410	5.5-5.0-5.0-5.5	4.0	2.0	-	SM	Growing on motorway verge. Branches on track side have been flailed or torn.	Good	Good	40+	**B1**	4.9	76	-
T38	Ash (Common)	On	18.0	2	-	650	6.0-9.0-7.5-4.0	5.0	5.0	SE	EM	Included bark stem union at 1.5m.	Good	Fair	20+	**B1**	7.8	191	-

TREE SURVEY SCHEDULE

POSTCOMBE & LEWKNOR SOLAR FARM

PROJECT NO: 6750

SURVEYOR: IAN MONGER

CLIENT: SLR CONSULTING LTD.

SURVEY DATE: 21/02/2025

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	TPO?
T39	Oak (English)	On	18.0	1	-	1070	10.0-14.0-12.5-10.0	5.5	5.0	E	M	Good form. Deadwood.	Good	Good	40+	A1	12.8	518	-
T40	Ash (Common)	On	12.0	2	-	770	7.5-8.0-8.0-6.0	1.5	1.0	E	M	Basal decay. Wound at 1.4m on trunk has Inonotus hispidus decay with old brackets present. Also decay and open wound on upper side of low eastern branch. No crown retrenchment.	Good	Fair	20+	B3	9.2	268	-
T41	Ash (Common)	On	14.0	1	-	880	4.0-5.0-5.0-4.0	3.0	2.0	S	LM	Pronounced buttress roots. Basal decay cavities. Lichens and mosses. Hollowed trunk with three large cavity openings to 4.5m height. Retrenched but healthy crown with other cavities and nesting holes in stem and branches. Deadwood.	Good	Fair	20+	A3	10.6	350	-
T42	Ash (Common)	On	12.0	1	-	790	10.0-6.0-0.5-4.0	2.5	2.5	N	LM	Tree leans at 60 degrees to NE. Pronounced buttress roots. Basal decay cavities. Lichens and mosses. Remnant hollowed trunk with underside split away leaving only half shell trunk. Retrenched but healthy crown.	Good	Fair	20+	A3	9.5	282	-
T43	Maple (Field)	On	9.0	2	Yes	450	4.0-4.5-4.5-4.5	2.5	2.0	E	EM	Flailed on road side.	Good	Good	40+	B1	5.4	92	-

GROUPS OF TREES

Ref	Species	On/ off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G1	Common ash; wild cherry; sycamore; hawthorn; English oak	On	4-17	200	-	450	4.5	1.0	SM	Planted belt of trees generally three rows deep; with scattered shrubs below. Predominantly ash and cherry. Cherries generally suppressed.	Good	Good	20+	B2	5.4	Yes - W1
G2	Common ash; wild cherry; sycamore; Norway maple; hawthorn; blackthorn	On	4-15	60	-	530	4.5	1.0	SM	Planted belt of trees generally three rows deep; with scattered shrubs below. Predominantly ash and sycamore.	Good	Good	20+	B2	6.4	Yes - W1
G3	Common ash; Norway maple; wild cherry; sycamore; common beech; wych elm; hawthorn; wild privet	On	4-15	110	-	450	4.5	1.0	SM	Planted belt of trees. Predominantly ash and sycamore. Shrubs flailed as scrubby hedgerow on road side.	Good	Good	40+	B2	5.4	Yes - W2
G4	Field maple; hawthorn; sycamore; common beech; larch; wild cherry; hazel; wayfaring tree; wild privet; elder; spindle; blackthorn	On	5-16	450	Yes	550	4.5	2.0	SM	Densely planted group on motorway underpass cutting. Predominantly maples. Larger trees are along southern edge. Northern edge stems do not exceed 300mm diameter.	Good	Good	40+	B2	6.6	Yes - W2
G5	Norway spruce	On	2.5-8	45	-	130	2.0	0.0	Y	Small plantation.	Good	Good	20+	C1	1.6	-

TREE SURVEY SCHEDULE

POSTCOMBE & LEWKNOR SOLAR FARM

PROJECT NO: 6750

SURVEYOR: IAN MONGER

CLIENT: SLR CONSULTING LTD.

SURVEY DATE: 21/02/2025

Barton Hyett Arboricultural Consultants

Ref	Species	On/ off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G6	Common beech; wild cherry; common ash; Leyland cypress; hawthorn	Off	4-24	15	-	620	7.0	1.5	M	14 mature beeches with understorey.	Good	Good	40+	**B2**	7.4	Yes - W3
G7	Field maple; hawthorn; holly;	Off	2-13	60	-	300	5.0	5.0	SM	Motorway underpass cutting planting.	Good	Good	40+	**B2**	3.6	-
G8	Norway maple; Scots pine; wild cherry; Leyland cypress; horse chestnut; common beech; common walnut; holm oak; sycamore; Turkey oak; field maple	Off	8-13	50	Yes	280	3.5	2.5	SM	Plantation.	Good	Good	40+	**B2**	3.3	-
G9	Leyland cypress	Off	12	14	Yes	400	3.0	1.5	EM	Outgrown hedge.	Good	Good	20+	**B2**	4.8	-
G10	Blackthorn; field maple; sycamore; orchard apple; Lonicera	Off	4-7	40	-	100	2.0	0.0	EM	Predominantly blackthorn scrub with young tree natural regeneration.	Good	Fair	20+	**C2**	1.3	-
G11	Cherry laurel; Leyland cypress; hazel; snowberry	Off	2-5	7	Yes	140	2.0	0.0	SM	Cluster of garden shrubs.	Good	Good	20+	**C1**	1.7	-
G12	Common ash; sycamore; Norway maple; field maple; wild cherry; common beech; hawthorn; elder; blackthorn; wild privet; dog rose	On	3-15	400	-	480	5.0	1.5	SM	Planted belt of predominantly ash; maples and beech. Shrubs at edges flailed as hedge mostly on western side.	Good	Good	20+	**B2**	5.8	Yes - W3
G13	Hawthorn wild cherry; dog rose; Norway maple	Off	2-6	100	Yes	200	2.0	0.0	SM	Scrubby; scattered group of motorway verge planting and natural regeneration.	Good	Good	40+	**B2**	2.4	-
G14	Common ash; Norway maple; wild cherry; field maple; common beech; sycamore; hawthorn	On	4-17	300	Yes	460	4.5	1.5	SM	Planted belt of about 4 rows. Predominantly ash with Norway maple. Beech concentrated towards eastern half. Some evidence of coppice regrowth.	Good	Good	20+	**B2**	5.5	Yes - W4
G15	Common ash; common beech; field maple; Norway maple; wild cherry; sycamore; hawthorn; common yew; wild privet	On	3-15	250	Yes	350	4.5	1.0	SM	Planted belt of predominantly ash with beech and Norway maple.	Good	Good	20+	**B2**	4.2	Yes - W5
G16	Common ash; common beech; field maple; Norway maple; wild cherry; sycamore; horse chestnut; hawthorn; wild privet	On	3-15	250	Yes	350	4.5	1.0	SM	Planted belt of predominantly ash with beech and Norway maple. Occasional larger diameter tree set further back towards road; but none significantly larger.	Good	Good	20+	**B2**	4.2	Yes - W5
G17	Common ash; sycamore; common beech; wild cherry; Norway maple; field maple; hawthorn; spindle; blackthorn; hazel; elder; dog rose	On	3-18	300	Yes	400	4.5	1.0	SM	Planted belt of predominantly ash with beech and Norway maple. No hedgerow along northern edge for most of length. Maximum stem diameter at western end is 27cm and all RPAs are beyond edge of track.	Good	Good	20+	**B2**	4.8	Yes - W6
G18	Horse chestnut	On	17	2	-	860	8.0	2.0	M	A pair of large trees. One tree has minor basal wound. Large limb and branch fracture wounds and stubs.	Good	Good	40+	**A2**	10.3	Yes - W7

TREE SURVEY SCHEDULE

POSTCOMBE & LEWKNOR SOLAR FARM

PROJECT NO: 6750

SURVEYOR: IAN MONGER

CLIENT: SLR CONSULTING LTD.

SURVEY DATE: 21/02/2025

Barton Hyett Arboricultural Consultants

Ref	Species	On/ off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G19	Common ash m English elm; sycamore; field maple; elder; spindle	Off	4-12	150	Yes	240	2.5	1.0	Y	Predominantly young ash; sycamore and elm; with some semi-mature sized trees. Area is clear of older trees due to felling or failure. High proportion of ash and elm likely to succumb to disease.	Good	Good	20+	C1	2.9	Yes - W7
G20	Common ash; sycamore; field maple; English elm; hawthorn	Off	4-12	25	Yes	230	2.5	1.0	Y	Predominantly young ash; sycamore and elm. High proportion of ash and elm likely to succumb to disease.	Good	Good	20+	C1	2.8	-
G21	Sycamore; field; hawthorn; common ash; blackthorn	Off	4-11	15	Yes	340	3.0	0.5	SM	Motorway verge trees.	Good	Good	40+	B2	4.1	-
G22	Common ash	Off	7-8.5	2	Yes	220	3.0	1.5	Y	Motorway verge trees.	Good	Good	20+	B2	2.6	-
G23	Common ash; sycamore	On	9-11	2	Yes	400	5.5	4.0	SM	Motorway verge trees.	Good	Good	20+	B2	4.8	-
G24	Common ash; sycamore; whitebeam; field maple; hybrid black poplar; Norway maple	Off	8-16	40	-	450	3.0	4.0	SM	Predominantly ash and sycamore plantation with maximum stem diameter of 30cm. One each hybrid black poplar and Norway maple up to 45cm diameter. Four mature horse chestnuts set further south beyond zone of influence of bridleway.	Good	Good	40+	B2	5.4	-
G25	Sycamore; field maple; common ash; English elm; horse chestnut; hazel	On	3-22	70	-	620	5.0	1.0	M	Linear group or predominantly mature sycamore and field maple; growing mostly to south of derelict flint boundary wall. Elm disease symptoms in some young elms. Group includes some large; mature field maples. One mature horse chestnut.	Good	Good	40+	B2	7.4	-
G26	Common ash; field maple; English elm; horse chestnut; crab apple; blackthorn; hawthorn	On	4-15	15	Yes	550	4.0	0.0	M	Mature outgrown hedgerow along bridleway bank. Flailed on field side.	Good	Good	40+	B2	6.6	-
G27	Leyland cypress; common beech; English oak; wild cherry; rowan; whitebeam; common alder; Norway maple; wil pear	On	8-17	150	Yes	600	6.0	3.0	SM	Semi-mature to early-mature screening plantation.	Good	Good	40+	B2	7.2	-
G28	Common ash	On	7-16	10	-	640	7.0	1.5	EM	Planted group; partially fenced. Some tree suppressed. Bacterial canker wounds and dieback in southern trees.	Fair	Fair	20+	B2	7.7	-
G29	Common beech	On	16-17	12	-	730	8.0	0.5	EM	Planted group; fenced. Some tree suppressed.	Good	Good	40+	B2	8.8	-
G30	Common ash; sycamore; hawthorn	Off	4-16	16	Yes	380	5.0	1.5	SM	Motorway verge natural regeneration along. Field regularly ploughed.	Good	Good	20	B2	4.5	-
G31	Common ash; sycamore; hawthorn	Off	4-12	16	Yes	350	3.5	0.5	SM	Motorway verge scattered natural regeneration along. Field regularly ploughed.	Good	Good	20+	B2	4.2	-
G32	Common ash; sycamore; hawthorn	Off	4-10	26	Yes	350	3.5	0.5	SM	Motorway verge scattered natural regeneration along. Field regularly ploughed.	Good	Good	20+	B2	4.2	-
G33	Common ash; English elm; hawthorn	Off	3-12	50	Yes	300	3.0	1.5	SM	Multi-stemmed natural regeneration along motorway boundary fence.	Good	Good	20+	B2	3.6	-

TREE SURVEY SCHEDULE

POSTCOMBE & LEWKNOR SOLAR FARM

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SURVEY DATE: 21/02/2025

Barton Hyett
Arboricultural Consultants

Ref	Species	On/ off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G34	Elder; hawthorn	On	5-6	6	Yes	200	3.0	0.0	M	Outgrown hedgerow shrubs; predominantly to south of drainage ditch.	Good	Good	40+	**B2**	2.4	-
G35	Hawthorn; blackthorn; goat willow; field maple; common ash; English elm; elder	On	4-14	70	Yes	550	5.0	0.0	M	Outgrown hedgerow trees and shrubs; predominantly to south of drainage ditch. Field to north regularly ploughed.	Good	Good	40+	**B2**	6.6	-
G36	Hawthorn; blackthorn; field maple; English elm; elder	On	3-9	25	Yes	300	3.5	0.0	M	Outgrown hedgerow trees and shrubs; predominantly to south of drainage ditch.	Good	Good	40+	**B2**	3.6	-

WOODLANDS

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
W1	Sycamore; horse chestnut; common ash; common beech spindle; hawthorn	On	3.5-24	40	-	670	8.0	4.0	M	Mature woodland that has been significantly thinned; probably due to proximity to motorway to remove defective trees. Trunk diameter represents furthest extent of RPA into site.	Good	Good	40+	**A2**	8.0	Yes - W7
W2	Wild cherry; common ash; sycamore; Norway maple; wych elm; hawthorn; cherry laurel; wayfaring tree	On	5-18	50	-	300	4.0	4.0	SM	Plantation. Low crowns over track.	Good	Good	40+	**B2**	3.6	-
W3	Common ash; wild cherry; sycamore; blackthorn; cherry laurel; hawthorn	On	5-18	120	-	300	4.5	2.5	SM	Plantation. Trees along side of track are small and scattered.	Good	Good	40+	**B2**	3.6	-

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HEDGEROWS

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H1	Hawthorn; blackthorn; spindle; elder; dog rose; English elm	On	2.5	1.0	100	0.0	EM	Maintained hedgerow with some gaps filled with bramble.	Good	Good	40+	**B2**	1.3
H2	Hawthorn; wild privet; dogwood; common beech; dog rose	On	4.5	2.0	150	0.0	EM	Flailed on road side.	Good	Good	40+	**B2**	1.8
H3	Hawthorn; blackthorn; wild privet; spindle; elder; dog rose	On	2.5	1.5	100	0.0	EM	Occasional gaps. Maintained hedgerow.	Good	Good	40+	**B2**	1.3
H4	Leyland cypress; Lonicera; hawthorn; Japanese privet	Off	2.5	1.5	100	0.0	SM	Trimmed garden hedge.	Good	Good	20+	**B2**	1.3
H5	Leyland cypress	Off	5.0	4.0	250	0.0	SM	Partially topped below HV power lines.	Good	Good	20+	**B2**	3.0
H6	Lonicera; spindle; Japanese privet; hazel; wayfaring tree; field maple	On	2.0	2.0	60	0.0	M	Predominantly Lonicera nitida hedge. Tightly trimmed.	Good	Good	40+	**B2**	0.8
H7	Lonicera; cherry laurel; Leyland cypress	Off	3.0	3.0	100	0.0	M	Predominantly Lonicera garden hedge. One Leyland cypress has grown up next to power line pole to 7m tall.	Good	Good	20+	**B2**	1.3
H8	Hawthorn; blackthorn; elder; sycamore; wild privet; spindle; dog rose	On	2.0	2.5	120	0.5	EM	Maintained hedgerow.	Good	Good	40+	**B2**	1.5
H9	Hawthorn; blackthorn; field maple; elder; dog rose	On	2.5	2.0	100	0.0	SM	Maintained hedgerow with significant gaps; particularly along northern edge. Access route through near eastern end.	Good	Fair	40+	**B2**	1.3
H10	Dogwood; Red Robin	Off	2.0	1.5	50	0.0	EM	Trimmed garden hedge.	Good	Good	20+	**C1**	0.6
H11	Hawthorn; blackthorn	On	2.0	2.5	150	0.0	M	Maintained hedgerow.	Good	Good	40+	**B2**	1.8
H12	Hawthorn; blackthorn; dogwood	On	2.0	2.5	150	0.0	M	Maintained hedgerow.	Good	Good	40+	**B2**	1.8
H13	Hawthorn; blackthorn; common beech; elder; dog rose	On	3.0	2.0	100	0.0	SM	Maintained hedgerow.	Good	Fair	40+	**B2**	1.3
H14	Hawthorn; blackthorn; crab apple; wild privet; dogwood; spindle; elder; dog rose	On	3.0	2.0	100	0.0	SM	Not recently flailed.	Good	Fair	40+	**B2**	1.3
H15	Blackthorn; hawthorn; dogwood; field maple; crab apple; dog rose	On	3.0	2.0	60	0.5	SM	Suppressed and sparse length of former hedgerow planting.	Fair	Fair	20+	**C1**	0.8
H16	Leyland cypress; Lonicera; hawthorn; Japanese privet	Off	7.0	3.0	250	0.0	SM	Maintained hedge. Very monotonous and incongruous with rural landscape. Provides important screening against motorway.	Good	Good	20+	**B2**	3.0
H17	Hawthorn; elder	On	2.0	3.0	170	0.0	M	Predominantly hawthorn maintained hedgerow.	Good	Good	40+	**B2**	2.0
H18	Hawthorn; elder	On	2.0	2.5	230	0.5	M	Two elders within hedgerow line. Mature shrubs with signs of historical laying.	Good	Fair	40+	**B2**	2.8
H19	Blackthorn; English elm	On	5.0	3.5	60	0.0	SM	Predominantly blackthorn hedgerow. Elm disease symptoms.	Good	Good	20+	**B2**	0.8

TREE SURVEY SCHEDULE

POSTCOMBE & LEWKNOR SOLAR FARM

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SURVEY DATE: 21/02/2025

Barton Hyett
Arboricultural Consultants

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H20	Blackthorn; field maple	On	2.0	3.0	120	0.0	M	Maintained hedgerow.	Good	Good	40+	**B2**	1.5
H21	Blackthorn	On	2.0	3.0	100	0.0	M	Predominantly bramble; with blackthorn scrub and dead stems.	Good	Good	10+	**C1**	1.3
H22	Hawthorn; blackthorn; elder	On	5.0	5.0	280	0.0	M	Outgrown hedgerow.	Good	Good	40+	**B2**	3.3

- The tree survey was carried out with reference to the methodology set out in BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- Trees were surveyed individually or as groups where it was considered that they had grown together to form cohesive arboricultural features either aerodynamically (trees that provide companion shelter), visually (e.g. avenues or screens) or culturally (including for biodiversity). However, where it was considered that there was an arboricultural need to differentiate between attributes trees within groups and/or woodlands were also surveyed as individuals.
- Within the tree survey schedule, each surveyed TREE (T), GROUP (G), HEDGEROW (H), WOODLAND (W) or SHRUB MASS on or adjacent to the site is given a reference number which refers to its position on the tree survey and constraints plan.
- TREE SPECIES are listed by common name.
- OOS: The recorded Out Of Scope trees and features refer to either a dead-standing or failed tree; a stump or minor shrubs; where trees are inaccessible or located off-site and unlikely to be affected by the development or, it is found that the trees are undersized according to BS 5837:2012, which stipulates a minimum recordable diameter of 75mm.

The **DIMENSIONS** taken are:

- STEM-No. indicates the number of main stems (i.e. whether the trunk divides at or below 1.5m; (used in the calculation of root protection area (RPA)) "m-s" = Multi-stemmed.
- STEM DIAMETER (measured in millimetres), obtained from the girth measured at approx. 1.5m. For trees with 2 to 5 sub-stems, a notional figure is derived from the sum of their cross-sectional areas. For multi-stemmed trees, the notional diameter may be estimated on the basis of the average stem size x the number of stems. Note: a notional diameter may be estimated where measurement is not possible.
- HEIGHT (measured in metres), recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- The CROWN SPREAD, taken at the four cardinal points to derive an accurate representation of the tree crown, recorded up to the nearest half metre for dimensions up to 10m and to up the nearest whole metre for dimensions over 10m.
- CROWN CLEARANCES, expressed both as the existing height above ground level of the first significant branch along with its direction of growth (e.g., 2.5m-N) and also in terms of the overall crown e.g., the average height of the crown above ground level. Measurements are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- ESTIMATES: where any measurement has had to be estimated, e.g., due to inaccessibility, this is indicated by a "#" suffix to the measurement as shown in the Tree Survey Schedule.

LIFE STAGE is defined as follows:

Y Young: Normally stake dependent, establishing trees. Should be growing fast, usually primarily increasing in height more than spread but as yet making a limited impact upon the landscape.

SM Semi-mature: Established young trees, normally of good vigour and still increasing in height but beginning to spread laterally. Beginning to make an impact on the local landscape and environment. Semi-mature are still capable of being transplanted without preparation, up to 300mm girth and not yet sexually mature.

EM Early-mature: Not yet having reached 75% of expected mature size. Established young trees, normally of good vigour and still increasing in height but beginning to spread laterally. Beginning to make an impact on the local landscape and environment.

M Mature: Well-established trees, still growing with some vigour but tending to fill out and increase spread. Bark may be beginning to crack and fissure. In the middle half of their safe, useful life expectancies.

LM Late-mature: In full maturity but possibly beyond mature and in a state of natural decline. Still retaining some vigour but any growth is slowing.

A Ancient: A tree that has passed beyond maturity and is old/aged compared with other trees of the same species. Typically having a very wide trunk and a small canopy.

PHYSIOLOGICAL CONDITION (HEALTH & VITALITY):

Essentially a snapshot of the general health of the tree based upon its general appearance, its apparent vigour and the presence or absence of symptoms associated with poor health, physiological stress etc. (fungal infections may be recorded here but decay giving rise to structural weakness would be recorded under 'Structural Condition' – see next parameter):

Good: No significant health issues.

Fair: Indications of slight stress or minor disease (e.g., the presence of minor dieback/deadwood or epicormic shoot growth).

Poor: Significant stress or disease noted; larger areas of dieback than above.

Dead: (or Moribund).

STRUCTURAL CONDITION:

Features affecting the structural stability of the tree include decay, significant deadwood, root-plate instability or significant damage to structural roots, weak forks (e.g. those where bark is included between the members) etc. Classified as:

Good: No obvious structural defects: basically sound.

Fair: Minor, potential or incipient defects.

Poor: Significant feature(s) likely to lead to actual failure in the medium- to long-term.

Dead: (or Moribund).

ESTIMATED REMAINING CONTRIBUTION:

An estimate of the length of time in years that a tree might be expected to continue to make a useful contribution to the locality at an acceptable level of risk (based on an assumption of continued routine maintenance):

- Less than 10 years
- 10+ years
- 20+ years
- 40+ years

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SPECIAL IMPORTANCE:

Trees that are particularly notable as high-value trees such as ancient trees/woodland or veteran trees. Such trees may be regarded as the principal arboricultural features of a site and pose a significant constraint to potential development.

An ***ancient*** tree is one that has passed beyond maturity and is very old compared with other trees of the same species. Very few trees reach the ancient life stage. ***Veteran*** trees are often very old but not necessarily so; they may be regarded as 'survivors' that have developed some of the characteristic features of an ancient tree but have not necessarily lived as long. All ancient trees are veterans but not all veteran trees are ancient.

The term '*notable*' carries no weight within the National Planning Policy Framework (NPPF), but is a term that recognises a mature tree which may stand out in the local environment because it is large in comparison with other trees around it.

Ancient woodland is an area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland (ASNW), plantations on ancient woodland sites (PAWS) and ancient replanted woodland (ARW).

QUALITY CATEGORY:

Trees are classed as category U, A, B or C, based on criteria given in BS 5837:2012; summary definitions as follows (see BS 5837 for further details). Categories A, B and C are further characterised by the use of sub-categories, which attempt to identify what aspect of the tree is the main source of its perceived value, These are:

(1) arboricultural qualities
(2) landscape qualities, and
(3) cultural, historic or ecological/conservation qualities.

Examples of these qualities for each of the three categories are given below, although these are indicative only.

Note: This is NOT a health and safety classification; the classification does not take into account any requirement for remedial tree care or ongoing maintenance apart from that which may affect the trees' general suitability for retention.

CATEGORY A: HIGH QUALITY:

Trees or groups whose retention should be given a particularly high priority within the design process. Normally with an expected useful life expectancy of at least 40 years.

A1: Notably fine specimens; rare or unusual specimens; essential component trees within groups, semi-formal or formal plantings (e.g., dominant trees within an avenue etc.).
A2: Trees, groups or woodlands of particular visual importance as landscape features.
A3: Trees, groups or woodlands of particular significance by virtue of their conservation, historical, commemorative or other value (e.g., veteran trees or wood pasture).

CATEGORY B: MODERATE QUALITY

Trees or groups of some importance with a likely useful life expectancy in excess of 20 years. Their retention would be desirable; selective removal of certain individuals may be acceptable but only after full consideration of all alternative courses of action.

B1: Fair quality but not exceptional; good specimens showing some impairment (e.g., remediable defects, minor storm damage or poor past management).
B2: Acceptable trees situated such as to have little visual impact within the wider locality. Also the number of trees, perhaps in groups or woodlands, whose value as landscape features is greater collectively than would warrant as individuals (such that the selective removal of an individual would not impact greatly upon the trees' overall, collective value).
B3: Trees, groups or woodlands with clearly identifiable conservation or other cultural benefits.

CATEGORY C: LOW QUALITY:

Trees or groups of rather low quality, although potentially capable of retention for at least approx. 10 years. Also small trees with stems below 150mm diameter.

Potentially retainable, but not of sufficient value to be regarded as a significant planning constraint.

C1: Unremarkable trees of very limited merit or significantly impaired condition.
C2: Trees offering only low- or short-term landscape benefits; also secondary specimens within groups or woodlands whose loss would not significantly diminish their landscape value.
C3: Trees with extremely limited conservation or other cultural benefits.

CATEGORY U: VERY LOW QUALITY

Trees likely to prove to be unsuitable for retention for longer than 10 years should any significant increase in site usage arise as a result of development. E.g., dead or moribund trees; those at risk of collapse or in terminal decline; trees that will be left unstable by other essential works such as the removal of nearby category U trees; trees infected by pathogens that could materially affect other trees; low-quality trees that are suppressing better specimens. (Category U trees may have conservation values that it might be desirable to preserve. This category may also include trees that should be removed irrespective of any development proposals.)

ROOT PROTECTION AREA (RPA):

These are normally represented as a circle centred on the base of each tree stem with a radius of 12 times the stem diameter, measured at 1.5m above ground level. The shape of the RPA may be altered where site conditions dictate that there are sound reasons to do so.

VETERAN OR ANCIENT TREE BUFFER (VTB/ATB)

In line with the Standing Advice produced by the Forestry Commission and Natural England, this is a buffer zone (in metres) around an ancient or veteran tree that should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5m from the edge of the tree's canopy if that area is larger than 15 times the tree's stem diameter.

ANCIENT WOODLAND BUFFER (FOR ASNW, PAWS OR ARW)

In line with the Standing Advice produced by the Forestry Commission and Natural England, this is a buffer zone of at least 15 metres to avoid root damage. Where assessment shows other impacts are likely to extend beyond this distance, a larger buffer zone may be required.

THE IMPORTANCE OF TREES

Wider benefits:

There is a growing body of evidence that trees bring a wide range of benefits to the places people live.

Some *Economic* benefits of trees include:

- Trees can increase property values
- As trees grow larger, the lift they give to property values grows proportionately
- They can improve the environmental performance of buildings by reducing heating and cooling costs, thereby cutting bills
- Mature landscapes with trees can be worth more as development sites
- Trees create a positive perception of a place for potential property buyers
- Urban trees improve the health of local populations, reducing healthcare costs

Some *Social* benefits of trees include:

- Trees help create a sense of place and local identity
- They benefit communities by increasing pride in the local area
- They can create focal points and landmarks
- They have a positive impact on people's physical and mental health
- They can have a positive impact on crime reduction

Some *Environmental* benefits of trees include:

- Urban trees reduce the 'urban heat island effect' of localised temperature extremes
- They provide shade, making streets and buildings cooler in summer
- They help remove dust and particulates from the air
- They help to reduce traffic noise by absorbing and deflecting sound
- They help to reduce wind speeds
- By providing food and shelter for wildlife they help increase biodiversity
- They can reduce the effects of flash flooding by slowing the rate at which rainfall reaches the ground
- They can help remediate contaminated soil

On new development sites:

Trees bring many benefits to new development. Where retained successfully they can form important and sustainable elements of green infrastructure, contribute to urban cooling and reduce energy demands in buildings. Their importance is acknowledged in relation to adaptation to the effects of climate change. Other benefits brought by trees include:

- increasing property values;
- visual amenity
- softening, complementing and adding maturity to built form
- displaying seasonal change
- increasing wildlife opportunities in built-up areas
- contributing to screening and shade
- reducing wind speed and turbulence

NATIONAL PLANNING POLICY

The National Planning Policy Framework February 2025 (NPPF paragraph 193 states that, when determining planning applications, local planning authorities should apply the following principle:

c) 'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists.'

In this respect, the following definitions apply:

'Ancient woodland: An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS)', and

'Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life stage.'

Note: Further information from the National Planning Policy Guidance Suite and Standing Advice is provided in the design guidance section.

Other paragraphs of the NPPF 2025 of relevance to this report are:

Paragraph 136: *'Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and*

community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.'

Paragraph 187: *'Planning policies and decisions should contribute to and enhance the natural and local environment by:*
b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.'

STATUTORY CONTROLS

Statutory tree protection

Works to trees which are covered by Tree Preservation Orders (TPOs) or are within a Conservation Area (CA) require permission or consent from the Local Planning Authority. Where information is available on any Statutory designations such as this they are identified within the summary table in Section 1 and on the Tree Survey and Constraints Plan at Section 2.

Notwithstanding specific exceptions and in general terms, a TPO prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of protected trees or woodlands without the prior written consent of the LPA.

Penalties for contravention of a TPO tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £20,000 if convicted in a Magistrates' Court, or an unlimited fine is the matter is determined by the Crown Court.

Similarly, and again notwithstanding specific exceptions, it is an offence to carry out any works to a tree in a Conservation Area with a trunk diameter greater than 75mm diameter at 1.5 height without having first provided the LPA with 6 weeks written notification of intent to carry out the works.

On many non-residential sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined. Therefore, we recommend that a further check is made with the LPA before any tree works are carried out.

Statutory Wildlife Protection

Although preliminary visual checks from ground level of likely wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside of the scope for this report.

Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for protected species such as bats in addition to birds and small mammals. It is advised that in some instances specialist ecological advice may be required. This may result in tree works being carried out following a detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, the site manager, site owner or consulting arboriculturist should be informed and appropriate action taken as recommended by the appointed Ecologist or Natural England.

It is advised that tree/hedgerow works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. This time period only provides an indication of likely nesting times and as such diligence is required when undertaking tree works at all times.

Irrespective of the time of year and other than any actions approved under General Licence, it is an offence to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest or eggs of any wild bird. Ideally, tree operations should be avoided during the likely bird nesting period. However, any tree works should always only be carried out following a preliminary visual check of the vegetation.

For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in England and Wales. A different legislative framework applies in Scotland and Northern Ireland.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with any relevant statutory controls, outlined above.

DESIGN GUIDANCE

Approach

The approach adopts the guidelines set out in the British Standard BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. The process is broken down to coordinate with the key elements within both the RIBA Plan of Work (2013) and British Standard 5837:2012 as set out in the table below:

Information Stage	RIBA Stage	BS5837:2012
Stage A – Tree Survey	2: Concept	4: Feasibility
Stage B – Arboricultural Impact Assessment	3: Developed design	5: Proposals
Stage C – Arboricultural Method Statement	4: Technical design	6: Technical Design
Stage D – Arboricultural Site Supervision	5: Construction	7: Demolition and construction

A hierarchical approach is adopted in order to achieve optimum use of the site and location of built structures. This is set out below:

Avoid

The starting point of Site layout design should be to avoid the RPA of retained trees and provide suitable clearance from above ground constraints [tree canopies]. Where possible building lines should be at least 2m outside the RPA to provide working space for construction. However, protection measures can be taken if such clearance is not achievable.

Mitigate

Where intrusion within the RPA is unavoidable then its impact on the tree can be mitigated by specialist measures:

Foundations that avoid trenching e.g. screw piles, suspended floor slabs or casting at ground level for lightweight structures such as bin and cycle stores.

Limited use may be made for parking, drives or hard surfaces within the root protection areas, subject to advice from a qualified arboriculturist. Cellular confinement systems that enable hard surfaces to be built above existing soil levels are acceptable methods subject to site-specific soil conditions.

Service runs that cannot be routed outside the RPA(s) can be installed by, for example, thrust boring, directional drilling, air excavation or hand digging. These operations often require supervision by the project arboriculturist.

Compensate

Replacement planting can ensure the continuity of tree cover where tree removal is unavoidable or desirable. Off-site provision may be considered in some circumstances but this will require negotiation with the local planning authority.

Considerations:

For proposed residential developments, consideration must be given to numerous factors future tree growth and orientation.

Tree constraints

Root Protection Areas:

With reference to BS5837:2012, a root protection area (RPA) is defined as "a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure should be treated as a priority". **"The default position [when considering design layout in relation to RPAs] should be that structures are located outside the RPAs of trees to be retained"**.

BS5837:2012 states (4.6.2) that, "where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced." The BS goes on to state that, "modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution," and that any deviation from the original circular plot should take into account:

- Morphology and disposition of roots;
- topography and drainage;
- soil type and structure;
- the likely tolerance of the tree to root damage/disturbance.

Additional buffer zones beyond the RPA:

The following text is taken from the Standing Advice produced by the Forestry Commission and Natural England as included in the National Planning Policy Guidance:

'A buffer zone's purpose is to protect ancient woodland and individual ancient or veteran trees. The size and type of buffer zone should vary depending on the scale, type and impact of the development'.

Ancient woodland buffer:

'For ancient woodlands, you should have a buffer zone of at least 15 metres to avoid root damage. Where assessment shows other impacts are likely to extend beyond this distance, you're likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic'.

Ancient and veteran tree buffer:

'A buffer zone around an ancient or veteran tree should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5m from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter'.

Above ground:

Above ground constraints posed by trees describe the capacity for trees to have an overbearing or dominating effect on new developments; usually post occupancy. Typical above ground constraints include a number or combination of inconveniences including shading, branch spread, movement of trees during strong winds and so on. If not adequately considered, above ground constraints can lead to repeated requests to fell or heavily prune retained and protected trees.

Shade:

Adverse shading and blocked views from windows raise concerns for incoming residents, which may lead to pressure to fell or remove trees in the future. Wherever possible it is advisable to arrange fenestration away from tree canopies to lessen the conflict, or increase window size to accommodate ambient light.

Conversely, appropriate designed development can use existing or new trees to create necessary and welcome shade and screening.

As part of the adopted approach the above considerations and constraints are assessed cumulatively in order to provide clear and site-specific advice on the areas of a site most suitable for the location of development.

Dependent on the site and nature of the proposed development, the Tree Survey and Constraints Plans may show the following:

Recommended Developable area - an advisory area defined in order to minimise arboricultural impacts using standard approaches to construction. Restricting proposed development to this area will limit the risk of harm to retained trees and of the Local Planning Authority objecting to the proposed development. It may be possible to propose development outside of this area but specific 'low impact' construction techniques may be needed recommended.

Recommended Buffer to development - similar to the Recommend Developable Area but defined as a line marking a suitable buffer to retained trees. More commonly used on large sites or sites where the presence of trees is localised.

Tree Opportunities

Depending on the scale of developments existing trees can often provide opportunities to enhance the existing arboricultural resource of a site by bringing it into good management or by putting in place remedial measures e.g. soil amelioration.

Appropriately designed new tree planting is extremely important in maintaining healthy and sustainable tree populations. For the reasons highlighted, new trees can bring many benefits to new developments. It is critical to the establishment of new tree planting that the locations, species and specification of new trees is appropriate. Subsequently the sourcing of high-quality stock, suitable planting and the provision of post planting maintenance are essential to allow new trees to establish and to allow them to mature.

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HOW TREE DAMAGE CAN OCCUR

Above the ground

Damage can occur as a result of knocks and scuffs, breakages of branches and/or tree trunks. This is often but not always associated with machine operations, groundworks excavations, tele handlers, high sided vehicles and crane use. Other forms of above ground damage include fixings to trunk and unauthorised cutting back of branches. Wounds will harm a tree's health and shorten its life by letting in disease-causing organisms.

Below the ground

It is often not appreciated that the majority of most tree roots are generally located within the top 600mm of the ground. On this basis it needs to be understood that damage to roots can occur in three ways:

- Root severance can occur as a result of, for example, soil stripping during site clearance or excavations.
- Root dieback and death can result from compaction of the soil. Compaction can occur as a result of vehicle weight, weight of stored materials or increased pedestrian access. Compaction crushes out soil pore space and prevents tree respiration from occurring (respiration requires gas exchange between the ground and the atmosphere). Compacted soil is denser and therefore inhibits/prevents any further new root growth.
- Pollution of the soil with chemicals such as oil or cement washings can destroy the soil environment, making it inhospitable for the tree cause causing it stress.

The effects of these impacts can be disfiguring to a tree's appearance and also weaken a tree making it more liable to attack by pest and diseases. In addition, root damage or death results in corresponding decline above the ground with dieback occurring within the tree crown.

The effects of damage to trees generally take some time to become fully apparent. In many cases, damaged trees decline slowly after the completion of a new development, until they eventually need to be removed due to ill health.

Tree protection barriers and load distributing 'no-dig' paths are specified in order to prevent soil compaction from taking place.

GENERAL SITE RULES FOR TREE PROTECTION

Do not independently carry out any activity that is at odds with the site scheme of tree protection. This is contained within an approved Arboricultural Method Statement (AMS) and accompanying Tree Protection Plan.

In simple terms: do not carry out any work within any Construction Exclusion Zone (CEZ) without prior liaison with the Project Arboriculturist and written authorisation from the Local Planning Authority.

Within the CEZ:

- No mixing of cement
- No soil/turf stripping, raising/lowering of ground levels (unless advised), deposit or excavation of soil or rubble
- No excavations for services or installation of services
- No storage of materials, machinery fuel, chemicals or other materials of any other description
- No parking/use of tracked or wheeled machinery
- No siting of temporary structures including hard standing areas, portaloos, site huts
- No lighting of fires or disposal of liquids
- Fires on site should be avoided if possible. Where they are unavoidable, they must not be lit in a position where heat could damage foliage or branches. Fires must be a minimum of 20m from the trunk of any retained tree or the centre line of any hedgerow to be retained
- No signs, cables, fixtures or fittings of any other description shall be attached to any part of a retained tree.