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CHURCH LANE



THREATS TREE SAFETY SURVEY



Prepared for: University of Reading

FLAC Instruction ref: 28-1018

Issued: September 2024

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CHURCH LANE : KEY TO HAZARD TREE REPORTING

Note

Trees are dynamic living organisms capable of achieving considerable size and structural complexity. They are exposed to and can become damaged by the elements and by human activity, and have co-evolved with decay-causing organisms that can degrade and sometimes destroy their structural integrity. Due to genetic characteristics and local microenvironmental factors this integrity can be innately uncertain. The laws and forces of nature dictate a natural failure rate even among trees that are healthy and structurally sound. By their very nature, therefore, trees cannot be considered entirely hazard-free.

Tree surveys and / or tree inspections are, inherently, only a snapshot in time of the physiological and structural condition of the trees concerned.

Unless otherwise stated in our reporting material, all such surveys and inspections are undertaken from ground level and no internal inspections or tests have been undertaken beyond those described in the methodology below. Any structural defects present might not be visible, for example if masked by vegetation, whether the tree's foliage, plants growing round the base of the tree, or climbing plants growing on the stem and into the crown.

Unless otherwise stated, the survey data should be considered time-limited to a maximum of three years, at which point a further inspection should be completed.

Scope

Please see Tree Location Plan, FLAC dwg no. 28-1018.40

Methodology

Trees were inspected in September 2024 visually from ground level with the aid of binoculars, mallet and probe where required, by an arboriculturist qualified to NQF Level 4 or above.

Where found to be in hazardous condition, trees were assessed for risk using the *Tree Hazard: Risk Evaluation and Treatment System* (THREATS) – please refer to the calculation tables below

The survey was undertaken based on 'negative reporting'; although all trees within the study area have been inspected, only trees identified as being hazardous within the THREATS assessment have been recorded

FLAC Ref No.

Tree numbers per FLAC dwg no. 28-1018.40 and subsequent drawings

Where trees occur as a cohesive group feature (prefixed TG for tree group or WG for woodland group), they are assessed as such

Size data for TG or WG are given as mean figures for trees at roughly the 80 percentile of the population concerned. Trees in the 90-100 percentile range for the group are identified on the TSP

Trees within TG / WG boundaries that have more than one stem and which are sub-dominant within the TG / WG (i.e. <80 percentile) are subsumed within the TG / WG data; dominant multi-stemmed trees (i.e. >80 percentile) within TG / WG boundaries are listed as individual trees

TG / WG outlines follow the mapping base (typically either topographical survey or geo-rectified aerial imagery)

All numbering starts from x001 **for each type of vegetation**, where x identifies the surveyor (8000 series = Didi Wade).
Thus:

8000	Individual tree
TG8000	Tree group

Species

Tree species as listed in the schedule by common name. Species present are:

<i>Common name</i>	<i>Botanical name</i>	<i>Provenance</i>	<i>Notes</i>
Ash	Fraxinus excelsior	Native	
Cherry plum	Prunus cerasifera	Naturalised	
Common lime	Tilia x europaea	Native	
Douglas fir	Pseudotsuga menziesii	Exotic	
Field maple	Acer campestre	Native	
Gean	Prunus avium	Native	
Hawthorn	Crataegus monogyna	Native	
Hazel	Corylus avellana	Native	
Horse chestnut	Aesculus hippocastanum	Naturalised	
Large leaved lime	Tilia platyphyllos	Native	
Norway maple	Acer platanoides	Exotic	
Pedunculate oak	Quercus robur	Native	
Purple plum	Prunus cerasifera 'Pissardii'	Exotic	
Silver birch	Betula pendula	Native	
Sycamore	Acer pseudoplatanus	Naturalised	

Age class

Life stage of trees divided into:

Y	Young
MA	Middle-aged
M	Mature
OM	Over-mature
V	Veteran

Either

Ht

Tree height given in metres

Or

Size class

Tree size according to the following stem diameter banding (in millimetres):

S	<100
M	100-350
L	350-750
VL	>750

Note

Intended to be a rough measure only

Stem dia.

Stem diameter at 1.5m AGL in millimetres

Phys.Cond.

An assessment of the **physiological** condition (i.e. health/vitality) status of the tree summarised according to:

GOOD	Generally in healthy condition
FAIR	Condition satisfactory though below mean/ typical species performance
POOR	Tree in decline/retranching
DEAD	Self explanatory

Observations

Notes on the structural integrity of the tree based on visual tree assessment, including notes on form, taper, forking habit, storm damage, decay fungi, pests, etc as appropriate, plus other pertinent observations

FS

Failure score – surveyor's judgement as to failure likelihood of identified defects, according to section 4 of THREATS methodology (THREATS stands for 'Tree Hazard: Risk Evaluation and Treatment System'):

Consider identified defects in relation to species/clone history, established failure criteria & time of year

Score	✓	Likelihood of failure	Example hazards
50		Imminent/Immediate	Uprooting; Extreme root loss; Collapsing structure (i.e. primary failure has already occurred)
8		Probable/Soon	Altered exposure; Primary decay fungus; Severe inclusive bark/root loss; Fragile dead wood
2		Likely, foreseeable	Lapsed pollard; Overweight/subsiding limbs; Poor stem taper; Dieback
.8		Potentially with time	Early development of inclusive bark; Robust dead wood
0		Very unlikely within 10 years	Tree generally free of defects, or insignificant defects only

TS

Target score – assessment of target value according to static or occupied targets, according to section 5 of THREATS:

Consider impact radius of identified defect against potential targets. Consider forward visibility available to drivers (Poor Forward Visibility / Good Forward Visibility) & whether vehicles are likely to be stationary, e.g. at junctions. If targets liable to include unsupervised children &/or the elderly or infirm, upgrade target value by one category. For railway targets use THREATS NR

Score	✓	Value	Static target examples	Target occupancy examples
40		Very high	Building 24 hour use	Constant vehicular traffic/busy playground
25		High	Building 12 hour use, ≥11Kv power lines	Frequent vehicular traffic/constant pedestrian use
20		Medium	Building/structure occasional use, <11Kv lines	Peak times traffic/intermittent use, PFV, e.g. commuter run
15		Low	Garage, Summer house, Listed wall	Occasional traffic/sporadic use, GFV e.g. quiet rural road
7		Very low	Unlisted wall, paving, garden features	Infrequently used access/public right of way/bridleway
0		None	Grass	Hardly ever used, e.g. remote path

IS

Impact score – assessment (mainly) of likely consequences of defective part striking assessed target, according to section 6 of THREATS:

Consider height of fall/momentum & whether e.g. lower branches would impede agent's descent

Score	✓	Degree of harm and consequences (examples)	Agent: trees, mm, or branches, kg (NB size/weight for guidance only)		
10		Severe structural damage, vehicles crushed – passenger fatalities very probable	VL	> 750mm	> 500kg
6		Moderate structural/ severe vehicle damage – fatal/disabling injuries likely	L	350-750mm	50-500kg
4		Minor damage/probable disabling/hospitalising injury to pedestrians	M	100-350mm	10-50kg
1		Fragile objects destroyed, superficial/recoverable injury to pedestrians	S	< 100mm	< 10kg

Hazard Rating

End result of multiplying Failure, Target and Impact scores. Trees with a zero score default to Threat Category 1 (see below) and require only quinquennial inspection

Threat Category

Risk classification within the range 1 – 7 (lowest => highest), depending on Hazard Rating; see section 8 of THREATS:

The use below of the word 'within' should not be taken to mean that delay is necessarily acceptable

Score range	✓	Threat Category	Recommended action & Completion deadline	Code
4000+		7- Extreme	Evacuate/prevent access to impact site, emergency call-out of contractors	E
2001-3999		6- Serious	Close site if practical; arrange for work to be completed within 7 days	7D
1000-2000		5- Significant	Arrange for work to be completed within four weeks maximum	4W
330-999		4- Moderate	Remediate within 13 weeks, reinspect after SWE meantime (inc. gales to Force 7+)	13W
160-329		3- Slight	Reinspect annually /after storms (Force 10+), expect to schedule work within 2 yrs	A
50-159		2- Minimal	Reinspect within 3 yrs if public access, schedule work as required	3Y
0-49		1- Insignificant	Reinspect within 5 yrs if general public access or 3 yrs if child-specific access & TS ≥20	3/5Y

Trees in categories 5, 6 & 7 are presented in the data table in red font and are considered 'dangerous' within the meaning of the statutory exemptions in relevant legislation

Recommendations

Recommendations for tree work and, occasionally, notes on reinspection. Generally, however, reinspection intervals are as follows:

Threat Category *Reinspection interval*

7, 6, 5

Dangerous trees requiring urgent or rapid intervention. No reinspection is required assuming work is programmed within given deadlines, though category 5 & 6 trees should be considered for reinspection following severe weather events should these occur prior to intervention (see Urgency Codes, below)

4 Should be considered for reinspection after severe weather events prior to remediation

3 Reinspect annually & after severe weather events unless treatment specified

2 Reinspect within 3 years

1 Reinspect within 5 years

Note

Tree work listed for trees in categories 1 & 2 is effectively optional in relation to risk management, but it is usually sensible to undertake this along with other scheduled works on site to maximise economies of scale

Recommendations may be included for reasons of sound arboricultural management with the intention of providing long-term improvement to the tree stock. These works are highlighted as *advisory*. Where there is a significant benefit to be gained from completing the works sooner rather than later a suggested timescale is given

Urgency code

Maximum time (related to Threat Category) for intervention / reinspection, as follows:

<i>Threat Category</i>	<i>Urgency code</i>	<i>Meaning</i>
7	E	Emergency
6	7D	Seven days
5	4W	Four weeks
4	13W	Thirteen weeks
3	12M	Twelve months
2	3Y	Three years
1	5Y	Five years

Please contact Julian Forbes-Laird jfl@flac.uk.com or Chris Shortis shortis@flac.uk.com should you have any queries on THREATS



CHURCH LANE : TREE SAFETY SURVEY DATA SHEET
FLAC ref. 28-1018

(Refer to Survey Key for column headings)

Data for individual trees, 8001 series

FLAC Tree No.	Species	Age Class	Phys. Cond. G-F-P-D	Ht (m)	Stem dia. (mm)	Observations Including: - FLAC tag no. for hazard trees - Prior tag no.	FS	TS	IS	Hazard Rating	Threat Category	Recommendations (Future management including reinspection)	Urgency code
8001	Norway maple	EM	P	12	380	High quantity of deadwood throughout, tree is ailing in health. Suppressed form with asymmetrical growth to west. Central stem dying back	2	20	6	240	3	Remove to ground level	12M
8002	Norway maple	M	F	15	560	Ivy clad from ground level to top of canopy., obscuring full visual assessment of structural condition. Large deadwood throughout over 50mm.	8	20	4	640	4	Sever ivy from removal of 1m section from ground level. Remove deadwood	13W
8003	Norway maple	M	F	16	540	Included main union at 2m above ground. Deadwood throughout over 25m. Asymmetrical form to SW	8	15	4	480	4	Remove deadwood. Reduce SW aspect by 1.5-2m to retain crown profile and alleviate end weight on main union	13W
8004	Ash	EM	P	13	185, 145	Twin stem from 0.5m, union appears sound. Asymmetric from to west. Dieback within canopy approximately 25%. Canopy is sparse, tree is declining	2	25	6	300	3	Remove to ground level	12M
8005	Norway maple	M	F	12	410, 330, 320, 280	Multi stem from 1m, unions appears sound at present. Bacterial exudations on northern stem near base. Evidence of previous pruning wounds at 1m with resultant flush cuts with no occlusion. Deadwood throughout crown	8	15	4	480	4	Remove deadwood	13W
8006	Douglas fir	EM	F	12	290	No obvious visual defects to note.	0	15	6	0	0	No works required at present	3/5Y
8007	Pedunculate oak	M	F	18	840	Ivy clad from ground level obscuring full visual inspection of structural condition. Deadwood over road to south. Low canopy over road to south, obscuring visual splay of street lamp and beginning to encroach on service lines. Asymmetrical crown to south.	2	25	4	200	3	Crown raise southern aspect to 6m to alleviate end weight, provide clearance to street lamp and road users. Prune back laterals encroaching service lines. Remove deadwood over road to south. Sever ivy from ground level	12M
8008	Large leaved lime	M	F	14	535	Ivy clad from ground level obscuring full visual inspection of structural condition. Epicormic growth at base.	0.8	25	6	120	2	Sever ivy from ground level. Remove epicormic growth at ground level	3Y
8009	Large leaved lime	M	F	10	590	Ivy clad from ground level obscuring full visual inspection of structural condition. Epicormic growth at base.	0.8	25	6	120	2	Sever. ivy from ground level. Remove epicormic growth at ground level	3Y
8010	Pedunculate oak	M	F	16	920	Access restricted due to dense holly growth. Ivy clad from ground level. Low laterals over road to south	0.8	25	6	120	2	Sever ivy ground level. Remove holly growth at base to allow full visual inspection	3Y
8011	Large leaved lime	M	F	13	340	Epicormic growth and prolific ivy at base, hindering full visual inspection. No obvious defects to note	0.8	25	6	120	2	Sever ivy from ground level. Remove epicormic growth at ground level	3Y
8012	Large leaved lime	M	F	13	360	Epicormic growth and prolific ivy at base, hindering full visual inspection. No obvious defects to note	0.8	25	6	120	2	Sever ivy from ground level. Remove epicormic growth at ground level	3Y
8013	Large leaved lime	M	F	14	450	Ivy clad from ground level, hindering full visual inspection. Deadwood in crown to south	2	25	4	200	3	Sever ivy from ground level. Remove deadwood in southern aspect	12M
8014	Large leaved lime	M	F	17	540	Ivy clad from ground level. Low laterals to SE over pavement. Deadwood within SE aspect of crown	2	15	1	30	1	Sever ivy from ground level. Raise crown over pavement to provide 3m clearance. Remove deadwood in SE aspect of crown	3Y
8015	Large leaved lime	M	F	16	380	Ivy clad and epicormic at ground level.	0.8	25	6	120	2	Sever ivy from ground level. Remove epicormic growth at ground level	3Y
8016	Large leaved lime		F	17	520	Ivy clad and epicormic at ground level. Deadwood to SE over road with low laterals encroaching road user space.	2	25	4	200	3	Sever ivy from ground level. Remove deadwood in southern aspect. Raise over road to provide 5m clearance	12M
8017	Large leaved lime	M	F	18	540	Ivy clad and epicormic at ground level. Deadwood to SE over road with low laterals encroaching road user space.	2	25	4	200	3	Sever ivy from ground level. Remove deadwood in southern aspect. Raise over road to provide 5m clearance	12M

FLAC Tree No.	Species	Age Class	Phys. Cond. G-F-P-D	Ht (m)	Stem dia. (mm)	Observations Including: - FLAC tag no. for hazard trees - Prior tag no.	FS	TS	IS	Hazard Rating	Threat Category	Recommendations (Future management including reinspection)	Urgency code
8018	Pedunculate oak	M	F	17	520	Ivy clad from ground level obscuring full visual inspection. Canopy is sparse with some areas of dieback. Low laterals to east over road and impeding street lamp. Minor deadwood over road of less than 25mm diameter.	0.8	25	6	120	2	Sever ivy from ground level. Raise over road to provide 5m clearance. Prune limb impeding on street lamp back to source.	3Y
8019	Horse chestnut	M	F	14	300, 285, 285, 150	Multi stem from ground level, all stems Ivy clad. Visual assessment of basal condition obscured by Ivy. Low laterals over road to east, also impeding street lamp.	2	25	4	200	3	Sever ivy. Provide clearance to street lamp. Raise over road to provide 5m clearance.	12M
8020	Pedunculate oak	M	D	10	680	Physical access unobtainable due to dense undergrowth. Tree is standing deadwood	8	25	6	1200	5	Remove to a height of 2m, in line with hedgerow, to retain for ecological purposes	4W
8021	Pedunculate oak	M	F	15	810	Ivy clad from ground level, obscuring full visual inspection. Growing on embankment slope. Bifurcates at 1.5m, union appears sound at present. Deadwood over road to east	2	25	4	200	3	Sever ivy. Remove deadwood over road to east	12M
8022	Pedunculate oak	M	F	14	630	Physical access unobtainable due to dense undergrowth, roadside assessment. Growing on embankment slope. Bifurcates at 2m, union appears sound at present. Deadwood over road to east. Crown is sparse with areas of dieback.	2	25	4	200	3	Sever ivy. Remove deadwood over road to east	12M
8023	Pedunculate oak	M	F	14	450	Physical access unobtainable due to dense undergrowth, roadside assessment. Growing on embankment slope. Deadwood over road to east. crown is sparse with areas of dieback. X1 over-extended lateral to north growing into T9024	2	25	4	200	3	Remove deadwood over road to east. Reduce identified over-extended limb on northern aspect by 3m to a suitable secondary growth point.	12M
8024	Field maple	M	F	14	320	Physical access unobtainable due to dense undergrowth, roadside assessment. Low laterals over road to east. Dieback within crown extremities. X1 limb to north in lower crown with historic wounding and little occlusion.	2	25	4	200	3	Raise crown to provide 5m clearance. Remove x1 identified limb with historic wounding back to source	12M
8025	Pedunculate oak	M	F	17	680	Physical access unobtainable due to dense undergrowth, roadside assessment. Growing on embankment slope. Ivy clad from ground level. X1 stub from previous work on eastern aspect extending over the road.	0.8	25	6	120	2	Sever ivy from ground level. Remove x1 identified stub back to source. Remove surrounding shrubs to allow access to tree	3Y
8026	Pedunculate oak	M	F	16	9010	Ivy clad from ground level. Twin stem with a wide spreading crown. Some deadwood present over road.	2	25	10	500	4	Sever ivy from ground level	13W
8027	Sycamore	EM	F	13	340	Visual assessment and physical access prevented by dense undergrowth	2	25	6	300	3	Remove surrounding undergrowth to allow physical access. Sever ivy	12M
8028	Purple plum	M	F	7	280	Physical access unobtainable due to dense undergrowth. Canopy impeding on street lamp	0	25	1	0	0	Reduce to provide clearance to street lamp	3/5Y
8029	Cherry plum	M	F	8	120, 120, 130	Physical access unobtainable due to dense undergrowth. Triple stem from ground level. No obvious defects	0	25	1	0	0	No works required at present	3/5Y
8030	Hawthorn	M	F	5	160	Low canopy over pavement	0	25	1	0	0	Raise crown over pavement to provide 3m clearance	3/5Y
8031	Field maple	M	F	7	290	Low laterals over pavement. Deadwood throughout canopy.	2	25	4	200	3	Raise crown to provide 3m clearance over pavement. Remove deadwood	12M
8032	Field maple	M	F	6	230	Asymmetrical canopy growth to east. No obvious defects	0	25	1	0	0	No works required at present	3/5Y
8033	Common lime	SM	F	6	190	Heavily included union with cracks either side. Questionable longevity in current location	2	25	6	300	3	Remove to ground level	12M
8034	Field maple	EM	F	6	120, 110	Twin stem from ground level. No obvious defects	0	25	1	0	0	No works required at present	3/5Y
8035	Field maple	M	F	6	200, 190	Twin stem from 1m. Low canopy over pavement. Canopy encroaching street lamp	2	25	4	200	3	Raise crown to provide 3m clearance over pavement. Reduce to provide clearance to street lamp	12M
8036	Field maple	M	F	6	190, 230	Twin stem from 1m. Canopy encroaching into private garden to east.	0	25	1	0	0	Reduce eastern aspect back to boundary line	3/5Y

FLAC Tree No.	Species	Age Class	Phys. Cond. G-F-P-D	Ht (m)	Stem dia. (mm)	Observations Including: - FLAC tag no. for hazard trees - Prior tag no.	FS	TS	IS	Hazard Rating	Threat Category	Recommendations (Future management including reinspection)	Urgency code
8037	Gean	M	F	7	240	Low laterals over pavement. Deadwood throughout	2	25	4	200	3	Raise crown to provide 3m clearance over pavement. Remove deadwood	12M
8038	Gean	M	P	8	270, 200	Heavily included main union with crack present. Canopy is sparse with small leaf size. High quantity of deadwood throughout. Tree is in decline	8	25	6	1200	5	Remove to ground level	4W
8039	Gean	M	F	8	480, 210	Ivy clad, obscuring full visual inspection. Twin stem from 0.5m. High quantity of deadwood throughout	2	25	4	200	3	Sever ivy from ground level. Remove deadwood	12M
8040	Gean	M	F-P	8	340	Low laterals over pavement. Deadwood throughout canopy. Sparse crown	2	25	4	200	3	Raise crown to provide 3m clearance over pavement. Remove deadwood	12M
8041	Ash	EM	F	9	245	Ivy clad from 1m. Asymmetrical crown to west with x1 over extended lateral over road. Deadwood throughout over road and pavement.	2	25	4	200	3	Reduce western aspect by 2m to retain crown profile. Remove deadwood. Sever ivy	12M
TG8001	Field maple	Y	F	4	50	Group of young field maple, no obvious visual defects	0	15	1	0	0	No works required at present	3/5Y
TG8002	Hazel, hawthorn, lime, birch	EM	F-P	5	120	14 stems, x6 hawthorn, x3 hazel, x3 lime, x2 birch. Dead stems within group. Area is too densely planted, issues are foreseeable.	2	25	4	200	3	Remove dead stems within group. Selective thinning of trees to allow more dominant individuals to develop full crowns in maturity. Raise crowns over pavement to provide 3m clearance. Reduce to provide clearance to road signs.	12M
TG8003	Hazel, gean, ash, hawthorn, field maple	EM	F-P	6	140	Mixed group. Dead stems within group. Area is too densely planted, issues are foreseeable.	2	25	4	200	3	Remove dead stems within group. Selective thinning of trees to allow more dominant individuals to develop full crowns in maturity. Raise crowns over pavement to provide 3m clearance. Reduce to provide clearance to road signs.	12M
TG8004	Ash, gean, field maple	EM	F	9	200	Ivy prevalent throughout group, obscuring full inspection.	2	20	6	240	3	Sever ivy throughout group	12M

Notes

Do not scale off dwg

Tree / woodland group outlines follow the topo survey or aerial imagery, as applicable

All tree positions are indicative unless a topo survey has been provided to FLAC

Any trees omitted from topo survey are located indicatively

Notes on potential habitat features are for guidance only: ecological assessment is recommended

Drawn to N unless otherwise indicated

INTENDED TO BE READ IN COLOUR



Client
University of Reading

Instruction
Church Lane

Instruction ref.
28-1018

Dwg title
Tree Safety Survey Plan

Dwg no.
28-1018.40

Date
03.09.24

Scale
Not to Scale

THREATS Categories:

- Category 1 Five years
- Category 2 Three years
- Category 3 12 months
- Category 4 13 weeks
- Category 5 Four weeks
- Category 6 Seven days
- Category 7 Emergency

Tree group canopy (shown yellow on aerial imagery)

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