



MacIntyre Trees
Arboricultural Consultancy

Arboricultural Impact Assessment Report.

In Relation to Demolition and
Construction at Hill Farm, Akeley Road,
Lillingstone Lovell.

Produced by Dan MacIntyre, Arboricultural Consultant for
MacIntyre Trees.

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SUMMARY

This report focuses on trees at trees immediately around Hill Farm, off Akeley Road in Lillingstone Lovell, and the potential impacts to trees as a result of proposed demolition and construction of a replacement timber framed dwelling.

Most of the trees are self-seeded and relatively young, with many growing in inappropriate positions, such as on, through, or directly next to buildings. These do not make a substantial construction to the surroundings, although there are a few larger individual trees which have good form and potential.

None of the trees surveyed are currently protected by preservation order and the land does not fall within a conservation area.

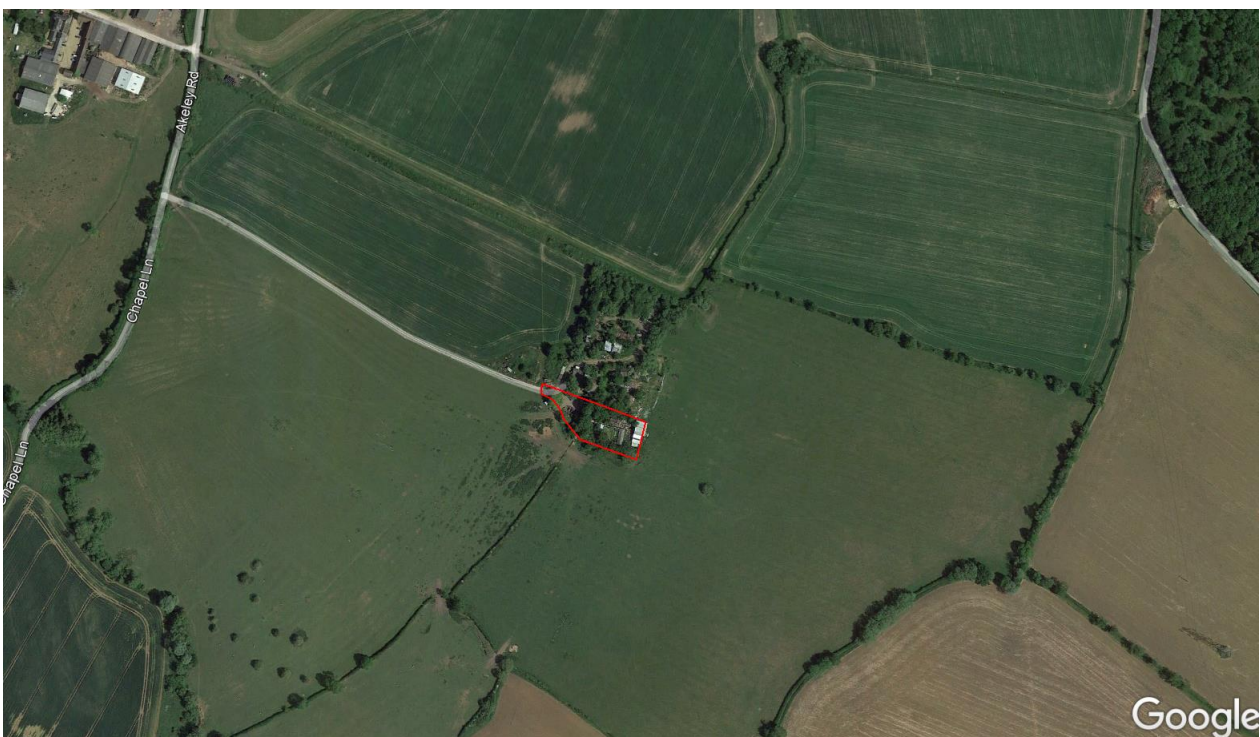
A total of 8 individual trees, 2 groups of trees and a small area of one group are proposed to be removed to enable the works.

Most of the tree removals are limited to category C self seeded ash saplings and pole size trees that have established due to the general disuse of the site. Three category B features (all ash) will also need to be removed – however, from an amenity loss viewpoint the impacts are considered negligible due to the remaining trees being retained, the secluded nature of the property and the rural surrounding landscape.

An appraisal of envisaged impacts is provided at section 4, [here](#) and details of tree protection measures are provided at section 5, [here](#).

Please click this Google map link to view the area [here](#).

Figure 1: Aerial Image showing approximate area of focus with red lines. © Google Earth. 2022.



1. INTRODUCTION

- 1.1. I have been instructed, by Mr C Porter, to carry out a tree survey at the directly around the farm house at Hill Farm, near Lillingstone Lovell. The survey was carried out, in accordance with the British Standard, BS 5837:2012¹, in September 2023 by myself; Dan MacIntyre.
- 1.2. My professional qualifications include the Arboricultural Association Technical Certificate, Level 3 National Certificate in Arboriculture. I hold the International Society of Arboriculture Tree Risk Assessment Qualification (TRAQ) and am a Lantra Certified Professional Tree Inspector with over 15 years of industry experience. My professional memberships include the Arboricultural Association, Institute of Chartered Foresters, International Society of Arboriculture and Small Woods Association. I hold professional indemnity and public liability insurances for appropriate values and can provide these certificates upon request, along with my professional qualifications.
- 1.3. The purpose of this report is to:
 - Record the current condition of the trees found on the site and categorise them using the criteria outlined in BS5837:2012;
 - Assess and detail any tree removals and impacts to trees that may occur as part of the proposed works; and,
 - Provide precautionary working methods and tree protection measures to minimise potential for damage to adjacent trees.

REPORT LIMITATIONS

- 1.4. Trees were inspected from ground level only. Prominent and significant tree defects have been identified, and recommendations are given to reduce risk where present. However; detailed hazard assessment, soil analysis and decay mapping are beyond the scope of this report, and as such, it should not be viewed as a substitute for an assessment of tree risk on site.
- 1.5. A topographical survey was provided and this is assumed to be correct and informed tree positions. Only a few smaller trees in G1, and G2 and one apple tree (T16) was not shown on the topo and so these are plotted indicatively.
- 1.6. The design layout is shown cyan on the Tree Removal and Protection Plan and this has been traced from a sketch plan provided.

¹ British Standards Institute (2012) *BS5837:2012 Trees in Relation to Design, Demolition and Construction- Recommendations*. British Standards Publications Ltd.

2. SITE DETAILS

- 2.1. The survey area focused on the land around a dilapidated farm building and associated outbuildings, the site is reached by a long stone track from the Akeley Road, and whilst there are a number of self-seeded ash along the road, these are of a size small enough that their inclusion in the survey and report is not felt warranted.
- 2.2. The buildings and site is in a particularly poor state and has remained unused for a number of years, leading to large areas of emergent scrub and self-seeded trees. Many of the outbuildings and barns are informal structures, comprised of materials bolted together creating a lean-to style shelters. A public right of way is present to the west and a bridleway runs along the south boundary, beyond a man-made bund. This bund appears to have been constructed from a variety of material including soil, building waste, metal, tyres, amongst other things and a shipping container/barn has been sunk into a portion of this bund.

STATUTORY PROTECTION

- 2.3. The Buckinghamshire Council (Aylesbury Vale Area) website indicates that none of the trees within the survey area are protected by tree preservation order and that the land is not within a conservation area. As such no formal consent is required from the council to remove trees at the time of writing. Providing the volume of trees to be removed is under the threshold for Felling Licence application, then the Forestry Commission also do not require consultation.

SOILS

- 2.4. The underlying soil types and their relationship between trees will affect structural foundation depths and designs. Geotechnical and an engineer's advice must be sought in relation to this aspect to avoid conflicts between trees and buildings in the future.
- 2.5. Information taken from the British Geological Survey Data website² indicates that the site may straddle Cornbrash (Limestone) bedrock geology with Oadby member sedimentary superficial deposits present.
- 2.6. Engineering input will be required to ensure that foundation depths are adequate when considering the adjacent trees and soil types. Mature tree heights of existing and proposed trees will also need to be considered as part of this exercise.

HABITAT

- 2.7. Mature trees can be used by birds and bats. All species of bat and nesting birds are protected in the UK by The Wildlife and Countryside Act 1981 (as amended), extended by the Countryside and Rights of Way Act 2000. If the presence of such legally protected species is suspected while undertaking any tree work, then the task should be halted immediately, and appropriate advice should be obtained from the project ecologist.

² <https://mapapps.bgs.ac.uk/geologyofbritain/home.html>

3. TREE SURVEY DATA AND TREE CONSTRAINTS PLAN

- 3.1. The following pages provide the tree survey data and a plan showing the existing trees and their BS 5837 quality categories. A summary of the categories recorded is shown below.

Table 2: BS 5837 Categories Recorded

Individual Trees				
BS 5837 Category	Cat A	Cat B	Cat C	Cat U
Qty	0	6	10	1
ID	NA	T3, T5, T6, T8, T14, T16,	T1, T2, T4, T7, T9, T10, T11, T12, T15, T17,	T13,
Groups of Trees				
BS 5837 Category	Cat A	Cat B	Cat C	Cat U
Qty	0	2	4	0
ID	NA	G3, G6,	G1, G2, G4, G5,	NA

- 3.2. A survey methodology is provided at [Appendix A](#) and this also provides a definition of the BS 5837 categories which may be of use to readers less well versed with the process. The survey key is shown below corresponding to the headings on the tree survey data tables.

Key to Tree Survey Data Table Headings

Ref No.	Tree, group or hedge number, corresponding to tree plans
Species	Genus and variety, common names are given.
Ht	Height in metres, top height given for group features. Either estimated or measured using Trupulse laser clinometer.
Dia	Stem diameter at 1.5m from ground level in millimeters. Measured using calipers or estimated where access was restricted. An average value is presented for group features.
N,S,E,W	Crown spreads at cardinal points, north, south, east and west. Estimated or measured in metres. Average spread shown for group features
LcH	Height of lower crown, estimated in metres.
PC, SC	Physiological (PC) and Structural Condition (SC). Based on assessment of tree/group and recorded as Good, Fair, Poor or Dead.
Age Class	Y – Young EM – Early mature SM – Semi Mature, M – Mature V – Veteran
Cat and Sub Cat	BS 5837:2012 categories and subcategories, please see section 3 for methodology and details.
ULE	Estimated useful life expectancy
Root Protection Radius	Calculation of root protection radius in metres (to be measured from stem) as based upon site measurements and calculation within British Standard 5837

Tree Survey Data

Ref No.	Species	Ht (m)	Dia (mm)	N	S	E	W	Lc H (m)	SC	PC	Age Class	Comments	Cat	Sub Cat	ULE (years)	Root Protection Radius (m)
T1	Wild cherry	5	140	4	4	1	3	1.5	Good	Good	Y	Small self seeded cherry. Average form. Some branch stubs. Suppressed by adjacent crown.	C	1	40+	1.7
T2	Wild cherry	7	320	6	4	2	5	2	Fair	Fair	EM	Twin stem from near base with bark inclusion present at union. East side of crown part dead, suppressed also by larger willow. Ground disturbance and root damage likely near stem base, with levels lowered and road plannings scraped to stem base.	C	1	20-40	3.8
T3	Weeping willow	12	780	8	7	6	8	5	Fair	Good	M	Numerous storm damaged limbs and some bark damage on north east side of main stem. Ground levels appear to have been lowered and gravel piled around base. Maiden form, with some long and end-weighted limbs which will be more prone to failure as tree becomes larger. Reduction to pollard form a suitable long term management option. Some dieback on north side. Wound at base on west side, possible decay buried beneath deposited gravel. Small cherry sapling to south.	B	1	20-40	9.4
T4	Crack willow	6	400	4	6	6	6	1.8	Fair	Fair	EM	Tree growing at base of large spoil pile containing variety of (waste) material. Multi-stemmed from around 1.8 metres some bark inclusions.	C	1	20-40	4.8
T5	Walnut	12	590	8	7	6	6	6	Fair	Good	SM	Twin stem from around 1 metre with east stem having very large tear wound on south side at around 1.5 metres, additional wound on large secondary limb at around 3 metres on west side. No advanced decay present, but longevity reduced because of the wounds. Apical growth slightly thin. Made ground directly to north of stem.	B	1	20-40	7.1

Tree Survey Data

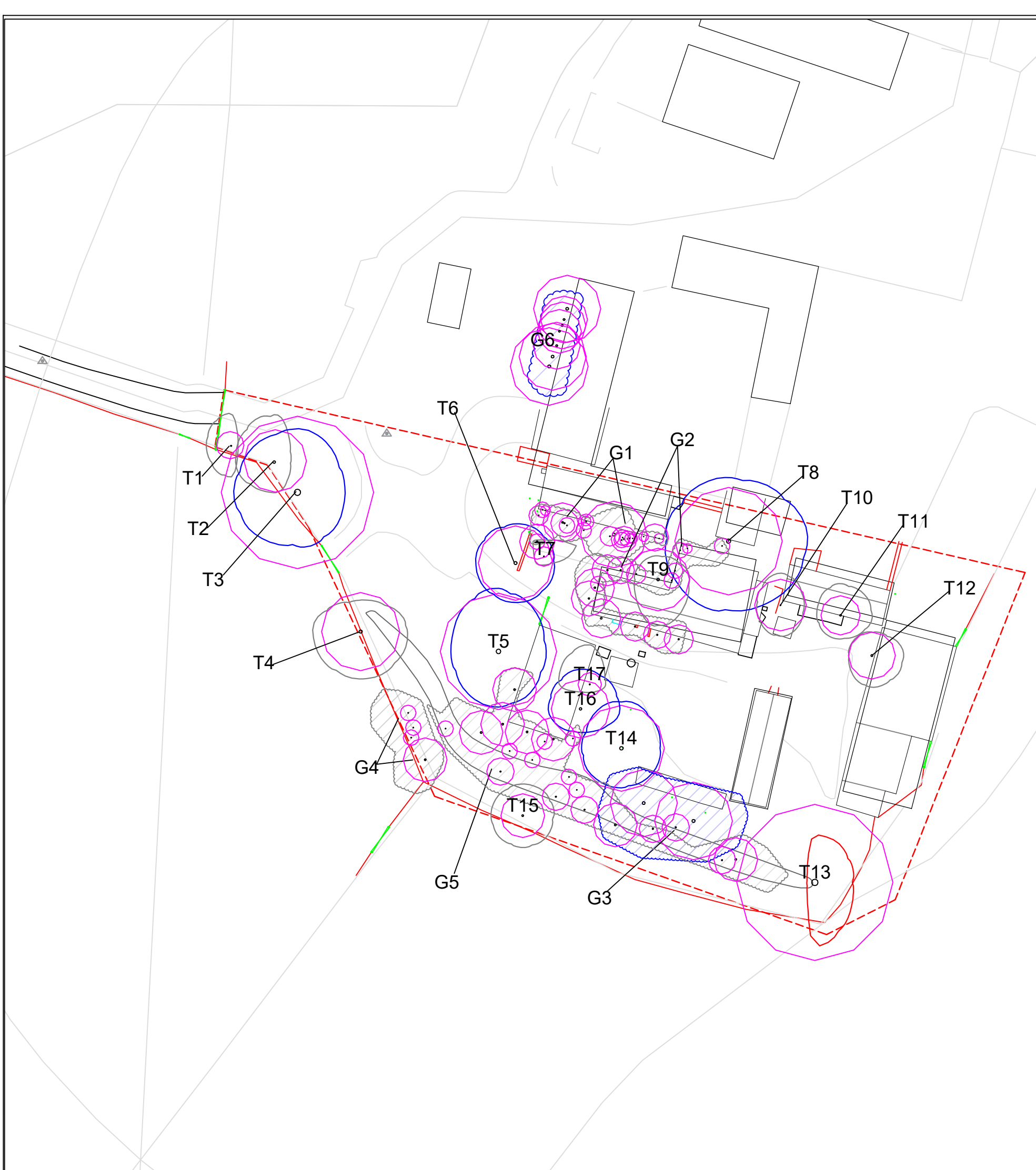
Ref No.	Species	Ht (m)	Dia (mm)	N	S	E	W	Lc H (m)	SC	PC	Age Class	Comments	Cat	Sub Cat	ULE (years)	Root Protection Radius (m)
T6	Common ash	14	380	5	5	5	5	3	Poor	Good	EM	Tree grows from base of stone wall, ground levels have been altered in the past. Large piles of road plannings also directly at base of stem.	B	1	20-40	4.6
T7	Pear variety	7	80	0.2	3	5	1	2	Fair	Fair	M	Regrowth growing from base of decaying stem. Very asymmetric crown. Congested and twisted stems. Pruning to achieve good aesthetic form not feasible and current state.	C	1	20-40	1.0
T8	Common ash	15	550	8	9	10	8	4	Fair	Fair	SM	Large ash growing directly from base of brick barn and displacing block work. Ivy covered stem which obscures twin stem union. Some deadwood in crown, but does not appear to be ash dieback disease related. Overhangs both buildings. Retention unfeasible in context of maintaining buildings in usable state.	B	1	20-40	6.6
T9	Goat willow	11	320	3	6	4	3	3	Fair	Good	SM	Triple stemmed from base with bark inclusion on south side. Tree grows within 1 metre of building line and overhangs roof significantly. Clothed in ivy and limited long-term	C	1	'10-20	3.8
T10	Common ash	10	260	4	4	3	3	2	Fair	Poor	EM	Multi stemmed from base and growing from base of stone barn. Some fire damage on south side. Limited amenity value or potential.	C	1	20-40	3.1
T11	Common ash	10	200	4	3	4	3	7	Fair	Fair	EM	Similar to previous, growing from base of stone barn. Clothed in ivy. Some fire damage on southwest side. Limited potential.	C	1	'10-20	2.4
T12	Common ash	10	240	3	4	4	3	4	Fair	Fair	EM	Self seeded, as previous but growing from base of agricultural barn shed. Numerous wounds up stem. Fire damage.	C	1	'10-20	2.9

Tree Survey Data

Ref No.	Species	Ht (m)	Dia (mm)	N	S	E	W	Lc H (m)	SC	PC	Age Class	Comments	Cat	Sub Cat	ULE (years)	Root Protection Radius (m)
T13	Crack willow	7	800	6	8	5	1	0	Poor	Poor	M	Very poor condition Willow with numerous failed limbs and sparse crown. Pollard form with decay at regrowth points and into main lower trunk. Growing from large pile of spoil.	U		<10	9.6
T14	Common ash	14	440	6	5	5	5	6	Good	Fair	SM	Tree has been high pruned to give clear stem to around 9 metres height. Low growth rates and somewhat sparse crown form. Some deadwood present.	B	1	20-40	5.3
T15	Common ash	6	220	4	4	4	4	1	Fair	Good	Y	Small self seeded tree on south side of man-made bank next to grazing field. Twin stemmed from base. Small feature of average form. Some tip dieback.	C	1	20-40	2.6
T16	Apple variety	6	300	5	3	5	4	2	Fair	Fair	M	Apple tree growing in area of scrub and next to base of shed. Not shown on topo so position estimated. Appears in relatively good health.	B	1	20-40	3.6
T17	Common ash	8	120	5	1	2	4	3	Fair	Fair	Y	No access to base due to dense vegetation. Self-seeded Ash growing from the base of shed and water tank. Average form.	C	1	20-40	1.4
G1	Common ash	7	100	3				0	Good	Fair	Y	Line of self-seeded Ash all growing from base of old stone barn. One larger (parent) tree within, also growing directly from base of barn. Some die back within - probable ash dieback disease (ADB) as epicormic flush and pattern of dieback indicative of this, ADB also present in area in numerous other trees. Some positive wildlife and screening value but in context of maintaining space as usable area trees are entirely inappropriate in their current positions.	C	2	20-40	1.2

Tree Survey Data

Ref No.	Species	Ht (m)	Dia (mm)	N	S	E	W	Lc H (m)	SC	PC	Age Class	Comments	Cat	Sub Cat	ULE (years)	Root Protection Radius (m)
G2	Common ash, Goat willow	7	100	3				0	Good	Good	EM	Self-seeded ash and goat willow around building. All growing through or from base of the building such that unfeasible to retain an interest of maintaining building in any usable state. Some ash dieback disease noted. Limited wider landscape value or potential.	C	1,2	20-40	1.2
G3	Common ash, Horse chestnut,	6	100	2				0	Fair	Fair	EM	Two early mature horse chestnut on east portion of waste filled man made bund. forming dominant canopy cover of group of trees along bund. Below average growth rates. Some screening value provided, but largely unremarkable in terms of amenity and form.	B	2	20-40	1.2
G4	Elder	3	50	2				0	Fair	Fair	EM	Small patch of elder scrub on southside of bank toe and next to grazing field. No stems on topo so plotted inicatively.	C	2	'10-20	0.6
G5	Ash, Hawthorn, Goat willow, Elm, Walnut	6	150	1				0	Fair	Fair	EM	Group of trees growing through man-made bank which contains spoil and variety of (waste) materials including brick, metal, tyres, and other building materials. Predominantly ash self-set, with some elm becoming prevalent, particularly at west end. One failed stem on shipping container barn.	C	2	20-40	1.8
G6	Lawson cypress	16	300	2				4	Fair	Good	SM	Line of cypress next to barn, Numerous bark inclusion- typical for species but often results in failures as trees get larger. Prominent but limited long term potential. Not on ytopo so pltted inidcatively.	B	2	20-40	3.6



Linear distances for root protection radii			
Ref No.	Species	Cat	Root Protection Radius (m)
T1	Wild cherry	C	1.7
T2	Wild cherry	C	3.8
T3	Weeping willow	B	9.4
T4	Crack willow	C	4.8
T5	Walnut	B	7.1
T6	Common ash	B	4.6
T7	Pear variety	C	1.0
T8	Common ash	B	6.6
T9	Goat willow	C	3.8
T10	Common ash	C	3.1
T11	Common ash	C	2.4
T12	Common ash	C	2.9
T13	Crack willow	U	9.6
T14	Common ash	B	5.3
T15	Common ash	C	2.6
T16	Apple variety	B	3.6
T17	Common ash	C	1.4
G1	Common ash	C	1.2
G2	Common ash, Goat willow	C	1.2
G3	Common ash, Horse chestnut,	B	1.2
G4	Elder	C	0.6
G5	Ash, Hawthorn, Goat willow, Elm, Walnut	C	1.8
G6	Lawson cypress	B	3.6

Key

Individual Trees

- Existing crown spread with BS Category Colour.
- Approximate shade arc
- Root Protection Area.
- Tree number
- Tree trunk

Groups of Trees

- Canopy extent of tree group with hatch and outline denoting Category Colour.
- Root protection area of groups are to canopy extent unless otherwise denoted with purple outline.
- Tree group number

Approximate survey area

BS 5837 Category Colours

- BS5837 Category A
- BS5837 Category B
- BS5837 Category C
- BS5837 Category U

Higher quality trees. Concerted efforts should be made to integrate these trees into design layouts and avoid their root protection areas entirely.

Lower quality trees or smaller trees. Retention of these trees may be desirable in terms of future succession and providing ecological and environmental benefits.

MacIntyre Trees
Arboricultural Consultancy

E: dan@macintyre-trees.co.uk
W: www.macintyre-trees.co.uk
T: 07843 564 984

Client: **HEXON_PLANNING CONSULTANTS**

Project Title: **HILL_FARM LILLINGSTONE_LOVELL**

Drawing Title: **TREE_CONSTRAINTS_PLAN (EXISTING_LAYOUT)**

Drawn	Date	Scale	Paper Size	Dimensions	Rev.
DM	10.01.24	1:200	A3	M	1

Project No.	Drawing No.	Status
23113	1	FINAL

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Tree positions shown based on supplied topographical survey except where noted within tree data tables.
Do Not Scale from This Drawing.



4. IMPACT ASSESSMENT

SUMMARY OF PROPOSALS

- 4.1. The demolition of the dilapidated farmhouse and a small number of closest outbuildings and shed like structures is proposed. This includes the removal of a shipping container and lean to structure between tree T5 and T16. This is a somewhat ramshackle feature which has been extended over the years and appears to be lacking any formal concrete base or footings. Areas of demolition are highlighted yellow on the plan at the end of this section, and the proposed layout is shown cyan.

TREE REMOVALS

- 4.2. A total of eight individual trees, two groups of trees and a small number of trees from group G5 will need to be removed to enable demolition and construction and the majority of these are self-seeded ash which grow from the base, or out of, the surrounding buildings. The table below summarises the removals.

Table 3. Tree Removals Required to Enable Demolition and Construction.

Ref No.	Species	Cat	Impacts of Proposals	Details
T6	Common ash	B	Remove	To enable safe working space, access for demolition/construction and to favour adjacent Walnut.
T7	Pear variety	C	Remove	To enable safe working space and access for demolition.
T8	Common ash	B	Remove	To allow demolition and construction – grows from base of barn.
T9	Goat willow	C	Remove	To allow demolition and construction.
T10	Common ash	C	Remove	Inappropriate to retain in position due to closeness to barn.
T11	Common ash	C	Remove	Inappropriate to retain in position due to closeness to barn.
T12	Common ash	C	Remove	Inappropriate to retain in position due to closeness to barn.
T17	Common ash	C	Remove	To allow demolition of adjacent barn and to avoid encroachment onto footprint of dwelling.
G1	Common ash	C	Remove	To allow demolition and on footprint of construction
G2	Common ash, Goat willow	C	Remove	To allow demolition and on footprint of construction
G5	Ash, Hawthorn, Goat willow, Elm, Walnut	C	Part Remove	Small area to be removed to enable removal of shipping container barn which is sunk into bund at southern end. Remove stems closest (within 1.5m) of shipping container/barn at southern end.

PRUNING

- 4.3. The proximity of the walnut tree (T5) and apple tree (T16) are such that there is potential for direct damage during the removal of the shipping container/barn. Some minor pruning would alleviate this aspect. Providing this pruning is carried out by suitably qualified and competent arboricultural contractors, and (in the case of the walnut) in the summer preceding works, then impacts will be minimised, and the overall appearance of the walnut tree will not be unduly compromised.
- 4.4. In the case of the apple tree, as this is a small garden specimen the overall appearance is not considered such a great issue, as it will be enjoyed by the new owners as a fruiting garden feature. To that end some restorative pruning of the apple tree, over the next few years would also be worthwhile, taking care not to remove great volumes of the crown, and aiming to achieve an open crown form with good airflow through the central portion.
- 4.5. Whilst not directly required to enable construction or demolition, the re-pollarding of tree T13 (willow) is also recommended as the tree is currently in particularly poor form with numerous failed limbs hanging into garden space. The stem condition of the tree is also poor, but some regrowth is likely which will be of benefit to wildlife. Because of the condition of this tree and its position on a raised bund and away from main construction, no additional protective fencing is felt necessary.

POTENTIAL ROOT PROTECTION AREA (RPA) IMPACTS

- 4.6. There is potential for additional ground compaction to occur at the entrance near tree T3 (willow) and whilst this is currently a compacted stone driveway surface, the anticipated machinery required for demolition and construction could cause compaction above and beyond that which is already accustomed to. Impacts caused by this aspect can be alleviated through the installation of proprietary track mats or other ground protection prior to demolition. Providing this is carried out and maintained throughout the course of demolition and construction, then impacts will be limited.
- 4.7. Similar impacts also likely to occur around the base of tree T5 (walnut) which currently comprises compacted road plantings and loose stone. The area is to continue to be utilised as driveway and access will also be required over the area to remove the shipping container and lean to barn. The removal of much of the existing lean-to structure can be carried out by hand and with minimal impacts to the trees, however the removal of the larger shipping container element will require plant machinery. Ground compaction impacts as a result of this can be greatly reduced by ensuring ground protection is installed prior to its removal and an alignment of protective fencing can be erected to the full extent of the RPA once the shipping container/barn has been removed to avoid further ground compaction or direct damage impacts.
- 4.8. The removal of the existing structures between trees T5 and T16 also has potential for below ground impacts, although there does not appear to be any formal concrete base or footings, and the main shipping container element appears suspended on timber with a void beneath. The southern portion of the shipping container is set partially within the bund, and so some excavation in the long-term will be required to create a shallow repose between the area previously occupied by the container and face of the bund. This falls outside of the root protection area of the walnut and apple trees, and considering the minimal level differences it is felt feasible it could be carried out post construction and by hand. Details of how this should be carried out should be provided in a site-specific method statement should planning permission be granted, but for the purposes of the main construction and demolition, the entire RPA's of the walnut and apple can be protected with fencing once the container and lean-to structures have been removed.

- 4.9. The final finish of the driveway and parking area is yet to be confirmed, but is felt feasible this could either remain as is, with no additional impacts to trees, or, if a more formal finish is desired, then a cellular confinement system³ could be utilised with a loose stone finish laid upon the existing grade. This will also negate the need for any surface removal through tree RPA's whilst still providing a suitable load-bearing surface and pleasant finish. Alternatively, the area directly around the walnut could be turfed and form an extension of the wider garden space, as this would be more beneficial to tree health. This element should be further investigated at the detailed design stage should planning permission be granted and any works within the root protection area should be carried out with tree health in mind and detailed within a site-specific arboricultural method statement.
- 4.10. Equally, the layout of underground services is yet to be confirmed, but it appears that there is ample space beyond the root protection areas of retained trees to install these elements without affecting trees. This will need to be considered during the detailed design stage, and the relevant disciplines should be made aware of the need to ensure services are routed well away from tree root protection areas.

WELFARE AND BUILDABILITY

- 4.11. Construction requirements such as welfare, storage, and working space have been considered and the size of the plot is such that it is feasible these elements can be accommodated without impinging on the root protection areas of retained trees.

FUTURE CONSIDERATIONS AND POST DEVELOPMENT PRESSURE

- 4.12. The orientation and potential size of tree T5 (walnut) and to a lesser extent trees T14 (ash) and T16 (apple) is such that daylight may be obscured into a portion of the building for parts of the day and cause nuisance in the long term. However, this will only affect a small proportion of the dwelling and is unlikely to significantly impact the enjoyment of the property.
- 4.13. New planting should be provided to provide some compensation for the loss of trees, and also to ensure succession of tree cover and the numerous benefits they bring into the long term. I recommend that a variety of species of smaller to medium-sized potential height be planted where they are in closer proximity to the dwelling so that conflicts do not arise when the trees reach mature proportions, and that larger species be planted where they can reach full proportions without the need for drastic pruning later in life. As the existing site is in a poor state it is likely that extensive landscape works will be desired by the homeowners. Given the garden space will be for their sole enjoyment, is felt acceptable that the garden should develop an organic manner, based on the homeowners personal preferences.

CONCLUSIONS

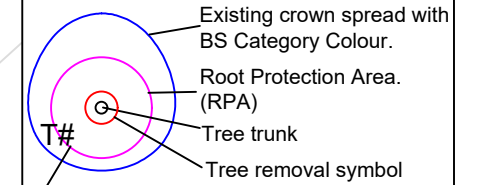
- 4.14. The majority of the tree removals are category C specimens whose loss will not significantly denude the area of tree cover. That said, replanting should be implemented post construction, to ensure succession in trees, the environmental benefits they bring and for the enjoyment of the new homeowners.
- 4.15. A description of impacts and tree removals is provided in table form overleaf, and a tree removal and protection plan is shown at the end of this section, this includes an alignment for tree protection fencing.

³ <https://greenfix.co.uk/geoweb/geoweb-tree-root-protection.html>

- 4.16. Some ground protection will be required to the north of T3 and T5, and an alignment of protective fencing will be required around retained trees.
- 4.17. The detailed design stage should clarify positions of any underground service routes and surfaces for driveways near trees, and this information can then inform a site-specific arboricultural method statement which should clearly set out how works are to proceed near trees. A preliminary method statement is also provided below and this sets out the principles of how works should be carried out to ensure tree protection.

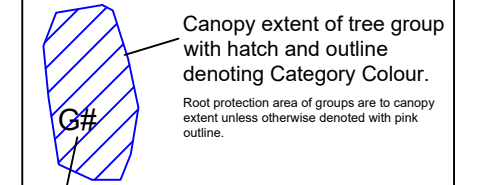
Key

Individual Trees

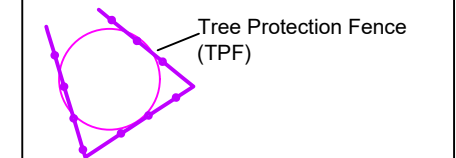


Tree number:
 Red text denotes removal. Black = Retain

Groups of Trees



Tree group number
 Red text denotes removal. Black = Retain



Potential root/ground impacts
 Ground protection required and method statement to detail mitigation

Proposed Layout

Proposed Demolition

BS 5837 Category Colours

Higher quality trees which should be most strongly considered for retention within a design layout and concerted efforts made to avoid their RPA entirely.

- BS5837 Category A
- BS5837 Category B

Lower quality trees or smaller trees. Retention of these trees may be desirable in terms of future succession and providing ecological and environmental benefits.

- BS5837 Category C
- BS5837 Category U



MacIntyre Trees
 Arboricultural Consultancy

E: dan@macintyre-trees.co.uk
 W: www.macintyre-trees.co.uk
 T: 07843 564 984

Client
**HEXON_PLANNING
 CONSULTANTS**

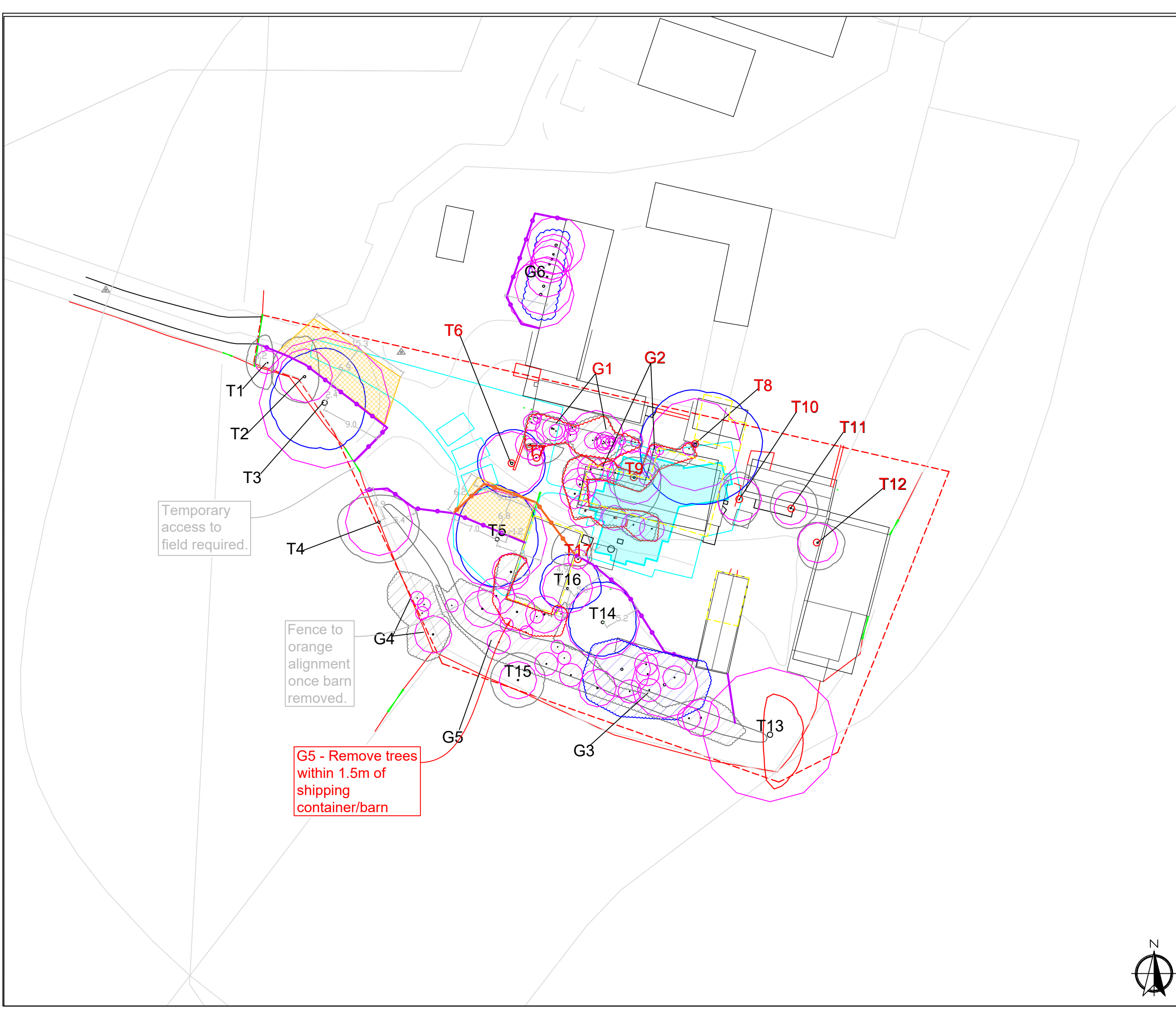
Project Title
**HILL_FARM
 LILLINGSTONE_LOVELL**

Drawing Title
**TREE_REMOVAL_AND
 PROTECTION_PLAN
 (PROPOSED_LAYOUT)**

Drawn	Date	Scale	Paper Size	Dimensions	Rev.
DM	10.01.24	1:500	A3	M	1

Project No.	Drawing No.	Status
22126	2	FINAL

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 Tree positions shown based on supplied topo survey unless otherwise noted in data tables. Proposed layout shown to demonstrate tree impacts and protection measures only. Please refer to architect supplied drawings for greater detail.



Tree Removals and Impacts Table

Ref No.	Species	Survey Notes	Cat	Impacts of Proposals	Details	Suggested Mitigation/Protection
T6	Common ash	Tree grows from base of stone wall, ground levels have been altered in the past. Large piles of road plannings also directly at base of stem.	B	Remove	To enable safe working space, access for demolition/construction and to favour adjacent Walnut.	New planting to be provided as part of landscape scheme.
T7	Pear variety	Regrowth growing from base of decaying stem. Very asymmetric crown. Congested and twisted stems. Pruning to achieve good aesthetic form not feasible and current state.	C	Remove	To enable safe working space, access for demolition.	New planting to be provided as part of landscape scheme.
T8	Common ash	Large ash growing directly from base of brick barn and displacing block work. Ivy covered stem which obscures twin stem union. Some deadwood in crown, but does not appear to be ash dieback disease related. Overhangs both buildings. Retention unfeasible in context of maintaining buildings in usable state.	B	Remove	To allow demolition and construction.	New planting to be provided as part of landscape scheme.
T9	Goat willow	Triple stemmed from base with bark inclusion on south side. Tree grows within 1 metre of building line and overhangs roof significantly. Clothed in ivy and limited long-term	C	Remove	To allow demolition and construction.	None
T10	Common ash	Multi stemmed from base and growing from base of stone barn. Some fire damage on south side. Limited amenity value or potential.	C	Remove	Inappropriate to retain in position due to closeness to barn.	None
T11	Common ash	Similar to previous, growing from base of stone barn. Clothed in ivy. Some fire damage on southwest side. Limited potential.	C	Remove	Inappropriate to retain in position due to closeness to barn.	None
T12	Common ash	Self seeded, as previous but growing from base of agricultural barn shed. Numerous wounds up stem. Fire damage.	C	Remove	Inappropriate to retain in position due to closeness to barn.	None

Tree Removals and Impacts Table

Ref No.	Species	Survey Notes	Cat	Impacts of Proposals	Details	Suggested Mitigation/Protection
T17	Common ash	No access to base due to dense vegetation. Self-seeded Ash growing from the base of shed and water tank. Average form.	C	Remove	To allow demolition of adjacent barn and to avoid encroachment onto footprint of dwelling.	None
G1	Common ash	Line of self-seeded Ash all growing from base of old stone barn. One larger (parent) tree within, also growing directly from base of barn. Some die back within - probable ash dieback disease (ADB) as epicormic flush and pattern of dieback indicative of this, ADB also present in area in numerous other trees. Some positive wildlife and screening value but in context of maintaining space as usable area trees are entirely inappropriate in their current positions.	C	Remove	To allow demolition and on footprint of construction	None
G2	Common ash, Goat willow	Self-seeded ash and goat willow around building. All growing through or from base of the building such that unfeasible to retain an interest of maintaining building in any usable state. Some ash dieback disease noted. Limited wider landscape value or potential.	C	Remove	To allow demolition and on footprint of construction	None
G5	Ash, Hawthorn, Goat willow, Elm, Walnut	Group of trees growing through man-made bank which contains spoil and variety of (waste) materials including brick, metal, tyres, and other building materials. Predominantly ash self-set, with some elm becoming prevalent, particularly at west end. One failed stem on shipping container barn.	C	Part Remove	Small area to be removed to enable removal of shipping container barn which is sunk into bund at southern end. Remove stems closest (within 1.5m) of shipping container/barn at southern end.	None

5. TREE PROTECTION MEASURES, PRELIMINARY METHOD STATEMENT

- 5.1. This section describes the order of events, protection and working methods to be observed near trees, as well as protection measures. It is presented in sequential order and all methods and protection measures will need to be implemented as described.
- 5.2. Because of this, it should be circulated to all relevant parties (both prospective and engaged) involved with site management and works, including demolition contractors, construction managers, technical managers, landscape architects, drainage engineers, and any other disciplines that will be involved in groundworks near trees.
- 5.3. The contents within should be checked with them, and they should be satisfied that the guidance is workable from a buildability point of view and accept the guidance must be followed.
- 5.4. The order of events should follow as below:

Order	Project Phase	Works
1	Before demolition.	Carry out tree removals as shown with red text and red circles and clouds on the tree removal and protection plan and pruning detail to T5, T13, T16
2	Before demolition.	Install tree protection as shown with purple alignment on tree removal and protection plan and to specifications at Appendix B. Install stem protection around T5.
3	Before demolition.	Install ground protection in areas shown with orange cross hatch on tree removal and protection plan, and to specification at Appendix B
4	Demolition	Observe precautions when working near trees as set in this section.
5	Before construction.	Install tree protection as shown with orange alignment on tree removal and protection plan between T5 and T16, and to specifications at Appendix B
6	Construction.	Highlight and observe tree specific details to be relayed to site operatives during inductions. Maintain fencing in condition fit for purpose and in original positions.
7	Post construction	Install any new landscape elements.

1) PRE-DEMOLITION PHASE - CARRY OUT TREE REMOVALS & PRUNING

- 5.5. Tree removals and pruning should be completed before any other works. Tree works should be carried out by a suitably qualified arboricultural contractor⁴. Tree removals includes the removal of those trees shown with red text and circles on the tree removal and protection plan and as listed overleaf.
- 5.6. Tree stumps (>200mm diameter) should be ground out to around 200-400mm below ground level rather than levered out where they stand within 4m of retained trees.

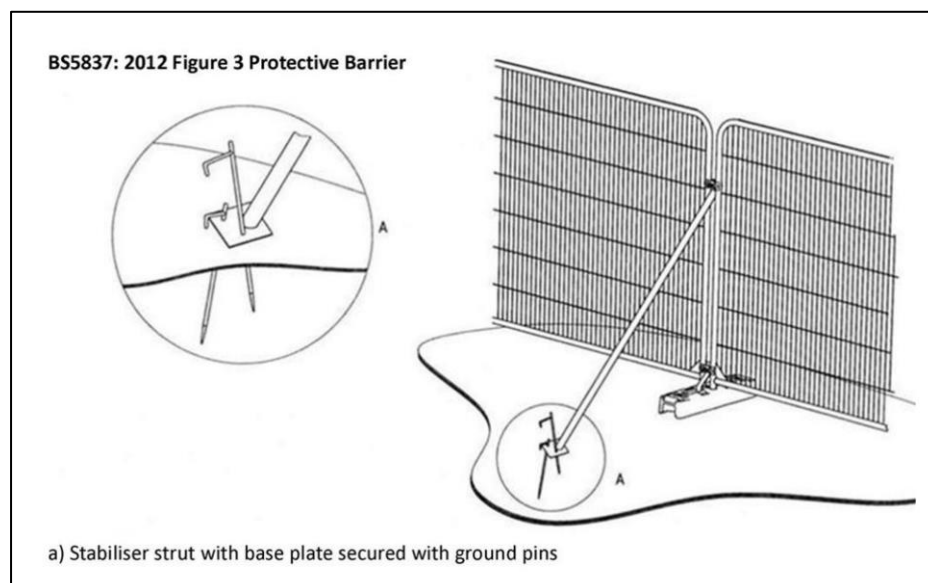
Tree Removals		
Ref No.	Species	BS5837 Category
T6	Common ash	B
T7	Pear variety	C
T8	Common ash	B
T9	Goat willow	C
T10	Common ash	C
T11	Common ash	B
T12	Common ash	C
T17	Common ash	C
G1	Common ash	C
G2	Common ash, Goat willow	C
G5 (Part only)	Ash, Hawthorn, Goat willow, Elm, Walnut	C

Tree Pruning		
Ref No.	Species	Pruning Required
T5	Walnut	Crown lift to around 4-5m all round and prune to clear container/barn by around 1-2m.
T16	Apple variety	Prune lateral growth to clear lean to shelter (c.1-2m) to allow removal of structure and avoid branch breakage.
T13	Willow	Re- pollard at around 1-2m.

⁴ Minimum level 2 arboriculture or forestry qualification, or Arboricultural Association approved contractor

2) PRE-DEMOLITION PHASE – INSTALL TREE PROTECTION FENCING AND STEM PROTECTION AROUND T5

- 5.7. Tree protection fencing should be erected to the alignment shown with a purple fence line, on the plan, dimensions and notes have been provided on the plan in section 4 to aid setting out. The fencing should be installed before any demolition, ground clearance or construction, or other project related preparatory works. The fencing must remain in place until all construction is complete.
- 5.8. The tree protection fencing should consist of a series of heras panels secured together (with at least 2 couplings per panel) and set on concrete or plastic feet which have been fixed in position using 500mm long steel rebar J pins⁵. The ground pins should be driven in each corner of the foot at angles to prevent movement or be braced in position with 750mm long survey pegs driven at each side and a cross brace screwed over the foot in an inverted U formation.
- 5.9. Supporting struts should also be fixed to the backside of the fence to add additional support and these supporting struts should be pegged in place to avoid movement of the fences, as shown overleaf⁶.
- 5.10. Signs should then be fixed to every third panel informing operatives of the need to respect and not move fencing as per the site induction. A fence specification and example of signage is shown at *Appendix B*.
- 5.11. This fenced area then forms a NO CONSTRUCTION ZONE for the duration of works on site, the tree protection fencing must not be moved, or any other access gained into the fenced area for construction related activities.
- 5.12. Protection around the trunk of tree T5 should also be installed, and this should comprise of crash mats ratchet straps around the tree stem to around 2 m height, or a simple plywood box structure erected around the tree trunk, taking care that no fixtures are made into the trunk itself. An example of stem protection is shown at *Appendix B*.



⁵ <https://www.ultimate-one.co.uk/8mm-dia-galvanised-steel-jpins-500x50x50mm-heavyduty-20-pack-p-1071>

⁶ Reproduced from British Standards Institute (2012) *BS5837:2012 Trees in Relation to Design, Demolition and Construction-Recommendations*. British Standards Publications Ltd.

3) PRE-DEMOLITION PHASE – INSTALL GROUND PROTECTION

- 5.13. Ground protection is shown by orange cross hatch on the tree removal and protection plan and it should be installed before any demolition begins. This should cover the area over the existing driveway to the north of the property and comprise a proprietary track mat solution⁷ similar to that shown at *Appendix B* and with at least a 90T load bearing capacity.
- 5.14. This ground protection must stay in place until all construction is complete although the protection near T5 can be removed once tree protection fencing has been shifted to encompass its RPA.

4) DEMOLITION PHASE - INFORMATION FOR SITE INDUCTIONS – RESPECT TREES AND FENCING!

- 5.15. All site operatives should be made aware of the need to respect trees and their protective fencing. The following precautions should be observed and relayed to all operatives working on site during an induction:
- Protective fencing should not be moved without acceptance of council Tree/Landscape Officer or an Arboricultural Consultant, or until all construction is complete, unless otherwise stated in this document.
 - The protective fencing is in place to protect trees. Trees need protection so that they can continue to function – without protection irreparable damage could occur and trees could die. On no account should it be moved, and care should be taken when working nearby the fencing.
 - Any damage to fencing should be reported to site foreman and re-instated immediately, to ensure that it remains effective in protecting the area around trees.
 - No materials, fuel, large volumes of water or chemicals to be discharged or mixed where they are likely to flow toward trees in the event of spillage.
 - Any concrete mixing stations should to have protective bunds constructed around them to ensure containment of resulting debris or contaminants.
 - Any spillages of potential contaminants (e.g. cement or cement washings, bitumen, contaminated water, chemicals) near trees must be reported immediately to the project manager or an arboricultural consultant and action taken to either flush the soil with large volumes of water or create a bund to avoid contaminants flowing toward tree protection areas.
 - No construction materials, arisings or spoil is to be stored or leant against fencing.
 - No fires to be lit within 20m of tree crowns.
- 5.16. Demolition of the lean-to structures and removal of the shipping container between tree T5 and T16 should be carried out with due care and attention and with the aid of a banksman and to ensure the works do not affect trees.
- 5.17. Much of the removal of the lean-to structure around the shipping container can be removed by hand or with very light plant. Again, care should be taken to ensure direct contact with trees does not occur, although the pruning specified will aid this aspect, the use of a banksman is also recommended.
- 5.18. The removal of the shipping container will require either a crane or large plant, and this should operate from beyond the RPA of tree T5. If the area of ground protection must be accessed, then care

⁷ <https://tufftrak-safety.com/product-category/medium-duty-ground-protection/>

should be taken to ensure that movement of boom and jib does not affect tree branches and additional ground protection may be required to ensure load bearing is adequate for to accommodate the machinery required.

- 5.19. An alternative solution would be to dismantle the container in situ by cutting it into sections. The resultant sections can then be removed using relatively light plant. Care and attention will need to be followed during this operation, to ensure safety of operatives, but also to ensure that sections do not fall towards trees or their protective fencing. Once the container and lean to structures have been removed care should be taken to avoid removing any of the underlying soil surface, and so no soil scraping should be carried out and all plant should work from as far away from trees as possible - this element should be clarified during the detailed design stage.

5) PRE-CONSTRUCTION PHASE. INSTALL TREE PROTECTION FENCING TO ENCOMPASS RPA OF T5 AND T 16

- 5.20. The tree protection fence alignment should then be extended to encompass the RPA of tree T5 and T16, as shown with the orange alignment on the tree removal and protection plan at the end of section 4. Specification and details as highlighted in points 5.7 - 5.12 should be followed and this fencing should then remain in place for the duration of construction.

6) CONSTRUCTION PHASE - INFORMATION FOR SITE INDUCTIONS – RESPECT TREES AND FENCING!

- 5.21. These likely that a separate team will be employed for the construction element, and site inductions should relay the information and bullet points noted above after 5.15. It should be made clear at the start of any works or when a new operative has been engaged, that trees and their protection are a priority. As the proposed dwelling is a timber framed building, the use of vast amounts of contaminants and heavy material such as bricks and concrete, is less likely to be an issue on site, and so achieving the bullet points noted after 5.15 is considered entirely feasible.

7) POST CONSTRUCTION PHASE - INFORMATION FOR SITE INDUCTIONS – RESPECT TREES AND FENCING!

- 5.22. Tree protection fencing and any remaining ground protection can be removed once all the superstructures have been instructed constructed and large plant machinery has been removed from site.
- 5.23. Any landscaping required can then be installed, and this will need to be carried out using hand tools, or pedestrian powered plant. Care should still be taken to avoid direct contact with trees, their larger roots and stems, and the general precautions provided after 5.15 should still be followed.

SURVEY METHODOLOGY

On site data was recorded with the aid of a topographical survey, or tree positions were triangulated using existing fixed features and OS data.

The data recorded includes:

- Height - gathered using tru-pulse laser clinometer or estimated in metres.
- Diameter - measurements taken at 1.5 metres above ground level (complying with requirements for BS5837). Girth data was gathered using a metric diameter tape, callipers or estimated where access was restricted.
- Tree crown spread – estimated measurement of the four cardinal points to provide information to be used with the arboricultural constraints plan
- Age class - estimated from an examination of the tree in question.

Age Classification

The following classification is employed:

- Y - Young: Saplings and young trees under 10 years of age
- EM – Early Mature: Trees older than 10 years but less than one-third of the life expectancy of their species, normally making substantial extension growth.
- SM – Semi Mature: Trees between one third and two-thirds of the life expectancy of their species. More or less full height and large girth, increasing only slowly.
- M – Mature: Trees beyond two-thirds of the life expectancy of their species. No significant extension growth.
- V – Veteran: Trees that shows features of biological, cultural or aesthetic value that are characteristic of an individual surviving beyond the typical age range for the species.

Structural Condition

Trees were assessed, from ground level only, for any structural defects including, but not limited to, cracks, cavities, decay, previous wounding and root movement. The categories given for structural condition are:

- Good – No visible significant defects noted;
- Fair – Minor defects noted that could be remedied through tree surgery works;
- Poor – Significant defects noted that predispose the tree to structural failure.

Physiological Condition

Trees were assessed for vigour and any signs of stress or ill health including, but not limited to, the presence of pests, diseases or pathogens and expected tree growth rates for species and age of a tree. The categories given for physiological condition are:

- Good – Growth rates as expected for species and no signs of pests or disease
- Fair – Growth rates appear below average for species and age, the presence of minor pest or disease that can be remedied.
- Poor – Growth rates well below expected for species and age with the possibility of infestation of pests or pathogen present.
- Dead – Little or no live growth. Unlikely tree will survive into following growing season.

Tree Condition/Comments.

Structural condition is also commented on and this will include such items as the presence of decay and structural defects.

Groups of similar trees were identified and treated in a similar way as the individual trees. Trees are generally plotted as groups where they form cohesive landscape features such as avenues, planting schemes in landscaped beds or shelterbelts

Trees are living organisms and their condition can change rapidly in response to environmental variables. Condition remarks refer to the date of survey and cannot be assumed to remain unchanged. While there is no such thing as a safe tree, regular inspection of trees is recommended to reduce the foreseeable risks associated with trees.

Estimated Remaining Contribution in Years

This is an estimate based on currently known factors of the possible remaining life of the tree. Clearly, it is impossible to predict changes in condition which may occur in the future, and this reflects what is considered reasonable under existing circumstances.

The estimated remaining contribution in years will be dependent on the interaction of the typical longevity of the species, its current age and condition with prevailing environmental factors. The estimated remaining contribution in years is also dependent on future tree management that can extend useful life in some instances.

BS 5837. METHOD AND BACKGROUND

This section briefly describes the methodology behind the recording and categorisation of trees.

All trees and tree groups inspected were categorised using the British Standard, BS5837:2012 and the attached Tree Constraints Plan shows tree positions, numbers, retention categories and Tree Root Protection Areas (RPA). A schedule of the trees is included at section 2 which include species, physiological and structural condition, age, recommendations and quality categories. The survey methodology is described in Appendix A.

Trees have been recorded as individuals or as groups. The British Standard sets out the description of a group as follows: "*The term "group" is intended to identify trees that form cohesive arboricultural features either **aerodynamically** (e.g. trees that provide companion shelter), **visually** (e.g. avenues or screens) or **culturally** including for biodiversity (e.g. parkland or wood pasture), in respect to each of the tree subcategories.*"

Where a tree in a group has characteristics that distinguish it from the rest of the group, it is generally recorded as an individual. Such trees may include but are not limited to, veteran trees, trees with significant defects, and specimen trees of different species that stand out from within the group.

The trees surveyed were categorised using the method explained in BS5837:2012. This method categorises individual trees, groups and woodlands in a systematic way. Each tree, group or woodland is identified on an attached plan.

Initially, it is determined if the tree should be regarded as a U category tree. U category trees are those that are of low value, which has little future due to poor physiological and structural condition. There may be instances where retention of a U category tree is appropriate, such as habitat enhancement, but this should be carefully considered and adequate space given to such retained features.

Other trees are graded A, B or C. The initial category should reflect the value of the trees in making an important contribution to the amenity of the site over a period of time. The higher the category, the longer the perceived time period.

A subcategory is included 1, 2 or 3. This subcategory reflects the type of value the surveyor feels the tree presents in regards its value to 1 – arboricultural, 2 – landscape, 3 – cultural or conservation. Unfortunately, the allocation of two or more subcategories does not increase the quality category but does indicate that it has a broader range of benefits.

The survey data and tree positions help inform the extent of tree Root Protection Areas (RPA) to ensure that development activities do not harm trees. BS5837 defines the root protection area as '*the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability*'.

Once design proposals are finalised those trees that can be retained should be afforded protection of their RPA with robust fencing to ensure damage (above and below ground) does not occur. This protected area should be viewed as a no-access area for the duration of any construction works, including demolition (a Construction Exclusion Zone).

The table below reflects the BS:5837 cascade chart.

BS5837:2012 Categories	Definitions	Retention implications to a site
Category A (Shown as green on the plans)	Trees of high quality and value able to make a substantial contribution to the site.	Concerted efforts should be made to retain trees and amendments to a proposed scheme should be identified in preference to tree removal.
Category B (Shown blue on the plans)	Trees of moderate quality and value able to make a significant contribution to the site.	Where possible amendments to a proposed scheme should be considered in preference to tree removal.
Category C (shown as grey on the plans)	Trees of low quality and value in an adequate condition until new planting can be established, trees with impairments downgrading them from A or B category OR young trees with a stem diameter of less than 150mm.	The retention of trees may be advantageous in the short term, but they should not be seen as a significant constraint to design layouts.
Category U (shown as red on the plans)	Trees that have limited condition that will fail or die within 10 years and/or should be removed for reasons of arboricultural best practice	Not necessarily a material consideration in the planning process but may have other distinct benefits that should be considered.

**TREE & STEM PROTECTION FENCE SPECIFICATION, GROUND PROTECTION
SPECIFICATION AND SIGNS FOR FENCING**

TREE PROTECTION FENCING MUST BE INSTALLED PRIOR TO ANY SITE PREPARATION, SOIL STRIPPING, DEMOLITION OR CONSTRUCTION WORK!

It is the responsibility of the site manager or delegated grounds work manager to ensure that tree protection is in place prior to any site preparation, and that it remains effective for the duration of works. Failure to do so could be a breach of planning consent and so result in enforcement action and a stop notice from the Local Authority.

Tree protection fencing should be erected to the alignment shown by the purple lines on the relevant tree protection plan. Linear dimensions are provided to aid setting out, if in doubt ask the arboricultural consultant – call me on 08007220339.

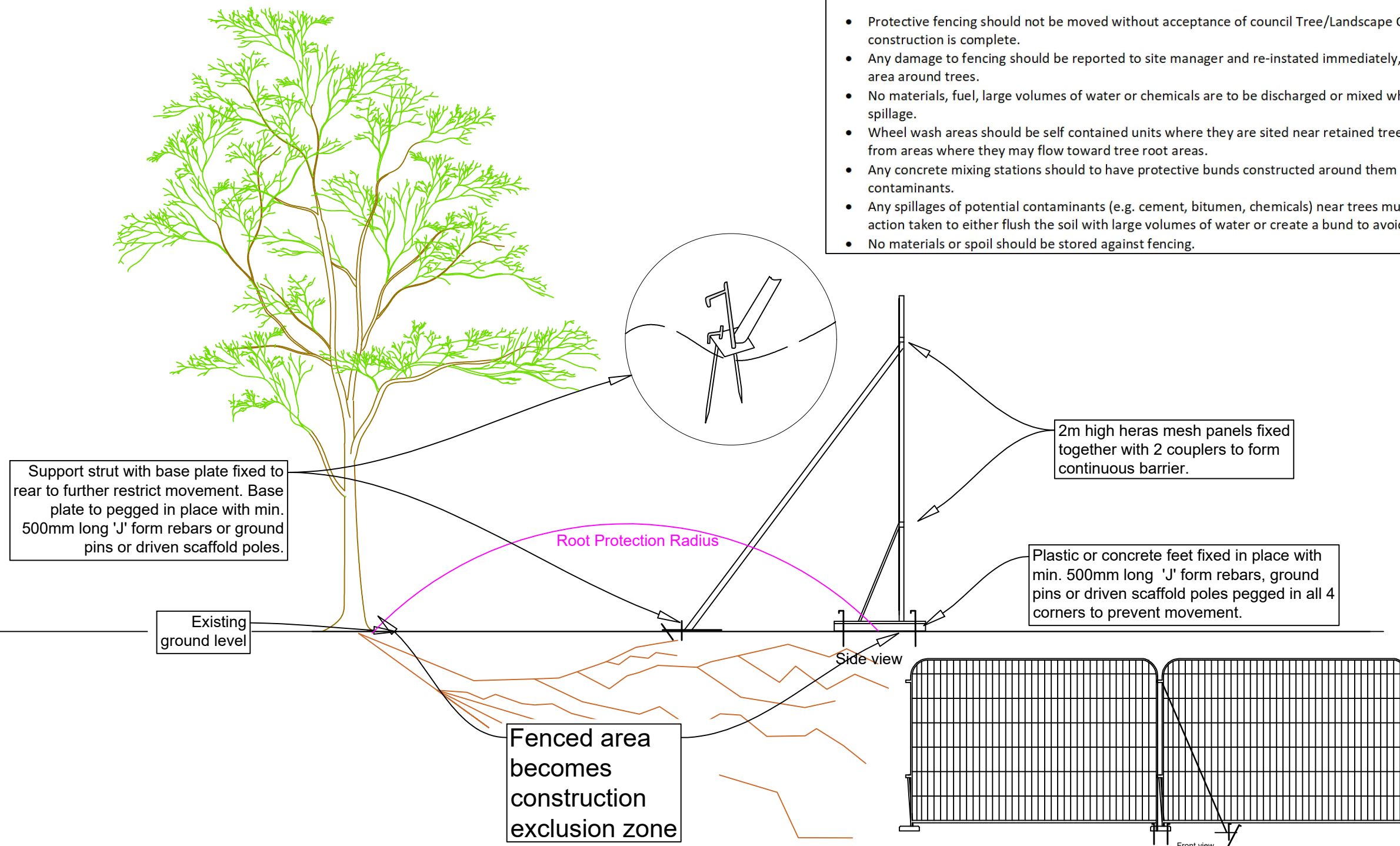
Fencing can consist of either site hoarding (>1.8m high) fixed in place with fence post concreted in the ground or a series of heras style mesh panels set on concrete or plastic feet each of which are fixed in position using 500mm long steel rebar J pins driven in each corner at angles to prevent movement. Supporting struts should also be fixed to the backside of the fence, and sign fixed to every third panel. Do not secure fencing to trees with rope.

This fenced area then forms a **construction exclusion zone** for the duration of any demolition or construction. On no account should fencing be moved, or any other access gained into the fenced area for construction related activities unless specified with an approved method statement prepared by an arboriculturalist.

Fencing must remain in place until all construction is complete and the fenced area must remain undisturbed until construction is complete.

All site operatives should be made aware of the need to respect fencing and this should be highlighted to all during a site induction. The following precautions should be observed and relayed to all operatives working on site during the induction:

- Protective fencing should not be moved without acceptance of council Tree/Landscape Officer or an Arboricultural Consultant, or until all construction is complete.
- Any damage to fencing should be reported to site manager and re-instated immediately, to ensure that it remains effective in protecting the area around trees.
- No materials, fuel, large volumes of water or chemicals are to be discharged or mixed where they are likely to flow toward trees in the event of spillage.
- Wheel wash areas should be self contained units where they are sited near retained trees or resultant water should be directed well away from areas where they may flow toward tree root areas.
- Any concrete mixing stations should have protective bunds constructed around them to ensure containment of resulting debris or contaminants.
- Any spillages of potential contaminants (e.g. cement, bitumen, chemicals) near trees must be reported immediately to the site manager and action taken to either flush the soil with large volumes of water or create a bund to avoid contaminants flowing toward tree protection areas.
- No materials or spoil should be stored against fencing.

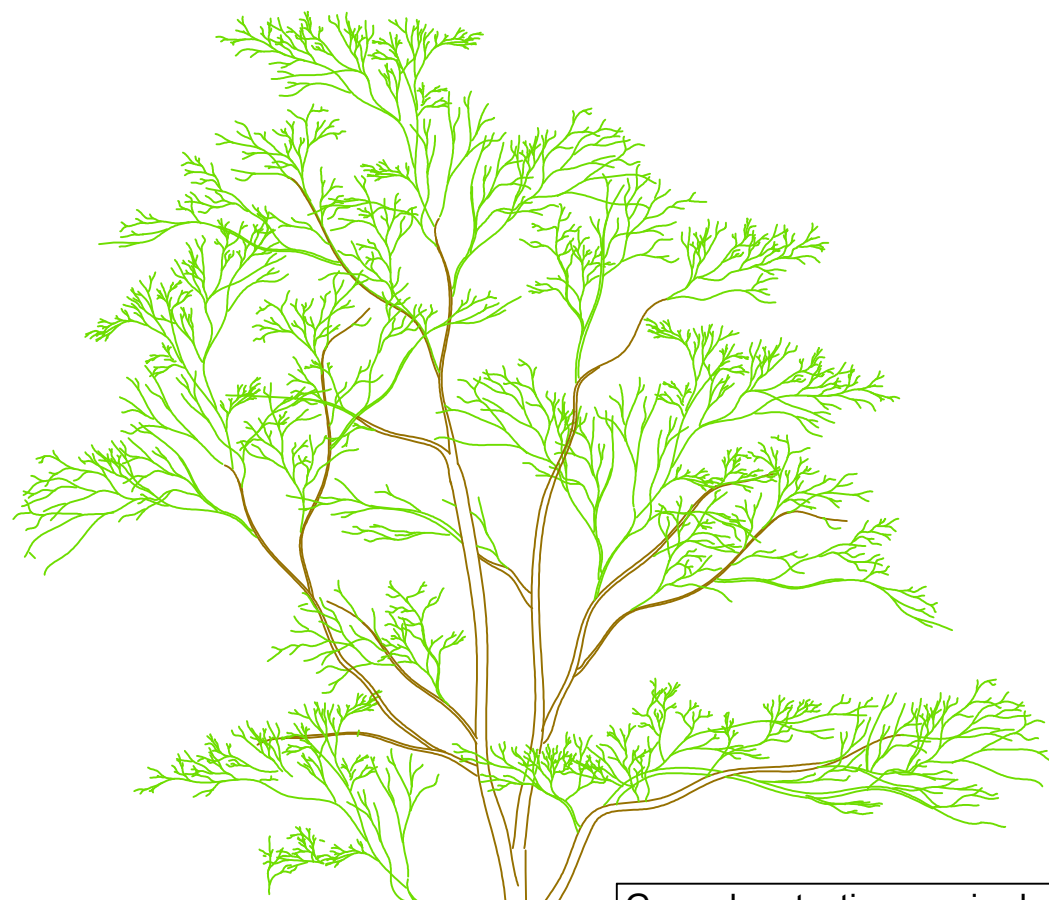


Drawing Title
**TREE_PROTECTION
 FENCE_SPECIFICATION**

MacIntyre Trees
 Arboricultural Consultancy

E: dan@macintyre-trees.co.uk
 W: www.macintyre-trees.co.uk
 T: 0800 722 0339

Drawn DM	Date 09.02.23	Scale NTS	Paper Size A3	Dimensions M	Rev. 0
Project No. -	Drawing No. 1	Status F			



Driven scaffold poles or timber posts to form free standing framework around tree trunk to 2m height. Wood sheet material to be fixed to framework to offer stem protection. No fixings to be made into tree.

Ground protection required over area shown orange cross hatch. To be installed prior to any construction and remain in place until all construction complete.

Minimum 11mm sheet material (OSB, Plyboards) or proprietry track mat solution such as Tuff Track

100-200mm deep compressible layer of woodchip

Landscape fabric geo textile layer

Existing ground level

Drawing Title
GROUND PROTECTION_SPECIFICATION



MacIntyre Trees
Arboricultural Consultancy

E: dan@macintyre-trees.co.uk
W: www.macintyre-trees.co.uk
T: 07843 564 984

Drawn DM	Date 18.12.20	Scale NTS	Paper Size A3	Dimensions M	Rev. 0
Project No. -	Drawing No. 1	Status F			

TuffTrack MD4 TrakMat®



MODEL	A: LENGTH	B: WIDTH	WEIGHT	COLOR
TM4496	8' (2.44m)	44.5" (1.13m)	78 lbs. (35 kg)	Black
TM3696	8' (2.44m)	36" (0.91m)	64 lbs. (29 kg)	Black
TM2296	8' (2.44m)	22.2" (.56m)	39 lbs. (18 kg)	Black

LOAD CAPACITY

160,000 lbs. (72,575 kg.)
Varies depending on sub-surface



- Manufactured from 100% recycled High Density Polyethylene (HDPE)
- Power cylinder tread surface provides impressive grip
- Hand holes for easy manoeuvrability
- Supports loads up to 90 tons*
- Available in black or green
- Smooth surface available
- Connector options available
- Man deployable
- Moulds to the ground due to its flexible construction
- Six-year limited warranty

TM — SPECIFICATIONS

TrakMat® has a load bearing capacity of up to 90 tons*. It is designed to allow large vehicles to easily traverse over grass, sidewalks, driveways and more without causing damage. TrakMat® prevents vehicles from getting stuck in muddy, wet, and unstable ground conditions and is ideal for use within construction, landscaping, utilities, events and leisure industries. TrakMat® has a flexible construction allowing the mats to contour along undulating or sloping ground conditions, preventing rutting or damage to turf. TrakMat® features a unique power cylinder tread surface to improve grip and forward motion of vehicles, with connector points on each corner, we can provide two or four-way tough urethane connectors and stay-put u-stakes to prevent mats from moving creating a firm trackway or workpad. The mat can easily be deployed by a two-person team due to its lightweight design weighing just 35 kg at its maximum size and 8.6 kg at its smallest. TrakMat® also features 2 hand holes along each long edge to ensure ease of handling. *Load bearing capacity is subject to ground conditions. Sizing is subject to a manufacturing variance of +/- 5%.



**THIS TREE PROTECTION FENCING
MUST NOT BE MOVED UNLESS
WRITTEN IN APPROVED
PLANNING DOCUMENTS.**

These trees are protected under planning consent.

Do not move this fencing.

Do not lean anything against it.

Do not damage it. Inform site manager if any damage occurs.

**Do not allow liquids/chemicals/cement of any kind to flow
toward it.**

Do not pile spoil close to it.

Do not move this fencing.

SITE PHOTOGRAPHS



Driveway leading to property



View from public footpath to south west of property



View from west



Typical tree cover around property



Close up of area near G5, Shipping container/lean-to barn buried



Container and lean-to forming 'barn' area near T5



Typical cover around building – south side



Outbuildings to east of main farmhouse



Tree T8



Typical cover around building, north side



Collapsed tree over container – G5



Rear garden area looking to south west