MacIntyre Trees
Arboricultural Consultancy

Arboricultural Impact Assessment Report.

In Relation to Proposed Demolition of the Former Public House - The Springfield, Milton Keynes.

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SUMMARY

This report focuses on trees at and around an derelict public house known as The Springfield, off Springfield Boulevard – MK6 3JS. It has been drafted in relation to the proposed demolition of the pub and potential impacts to adjacent trees.

Only one small, almost dead, tree is present on the site footprint with the remaining trees recorded growing in the adjacent land. I recommend the dead tree will be removed, and some minor pruning carried out to a small number of trees to enable demolition works. Providing site hoarding is maintained at the current positions no other impacts to trees are envisaged.

Please click this Google map link to view the area *here.*

An assessment of tree impacts can be seen *here*.

Figure 1: Aerial Image showing approximate area of focus with red lines. © Google Earth. 2020.

1. INTRODUCTION

1.1. I have been instructed, by Matthew Pearce of Smith Jenkins Limited, to survey trees at The Springfield Pub, and to provide an assessment of impacts in relation to the proposed demolition of the existing building.

1.2. This survey and report was carried out in accordance with the British Standard, BS 5837:2012[1] in July 2021 by myself; Dan MacIntyre.

1.3. 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.

1.4. 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.
- Provide a Tree Constraints Plan that identifies constraints to development presented by the trees and their root protection areas, as described in the British Standard.
- Assess and detail any impacts to trees that may occur as part of the proposed development, and;

REPORT LIMITATIONS

1.5. 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.

1.6. A topographical survey was provided for the survey and this is assumed to be correct (plan ref: 18908_ALL, TOPO).

[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 (termed the site hereafter) identified trees at and directly next to the pub. The site itself comprises a large hard surface parking areas and the main building. Tree were present in the parking area but most of which have been felled in recent years, leaving only emergent scrub and one, almost dead, Alder tree.

STATUTORY PROTECTION

2.2. It is understood that the site is not within a conservation area and that none of trees recorded are protected by a tree preservation order[2]. However, as a tree preservation order can be made at any time it is advisable to check with the local planning authority before removing or pruning trees, unless works are specifically detailed within an approved planning consent.

HABITAT

2.3. 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 an ecologist.

[2] https://mapping.milton-keynes.gov.uk/mymiltonkeynes.aspx

3. TREE SURVEY - RESULTS

3.1. Only two individual trees and five groups of trees have been recorded. Of these only tree T1 grows within the site footprint with the remaining trees forming positive features along streets and within open space recreation areas adjacent the site.

3.2. A greater number of trees previously grew within the car park of the site, although these have been removed in recent years leaving only tree T1, a very poorly formed and poor condition Alder tree. This tree is unlikely to survive in the short-term and so has being classed as a category U specimen.

3.3. Tree T2 is a well formed and pleasant Turkey Oak growing within the highway verge to the north of the site. It appears largely free from significant defects and contribute to the surroundings well. This has been classed as a category A specimen.

3.4. Group G1 comprises the double line of London Plane trees growing to the north of the site, and this continues along Springfield Boulevard. It is a very prominent and positive landscape feature, that can make a significant contribution in the long-term. As such as being classed as category A specimen.

3.5. Group G2 grows along the western flank of the site, within land maintained by the Milton Keynes Parks Trust. It comprises a sporadic group of Horse Chestnut trees, with a dense understory of Dogwood forming a good highway screening element, it has been classed as a category B feature.

3.6. Groups G3-G4 comprise portions of larger groups of Ash and Horse Chestnut trees which grow within the areas of open space to the south of the site. These also offer positive screening and wildlife value to the surroundings. These have also been classed as a B category features.

3.7. Group G5 comprises a small area of Hazel and shrub growth, which grows adjacent to the pub building on the eastern flank. Whilst it offers some good environmental and ecological benefits, it is not a prominent feature within the landscape, and has been classed as a category C feature.

4. IMPACT ASSESSMENT

SUMMARY OF PROPOSALS

4.1 The demolition of the existing public house is proposed to the building slab level, with no excavation beneath foundation depth being required.

TREE REMOVALS

4.2 No trees specifically need to be removed to enable the demolition although I recommend that tree T1 (Cat U) and the vegetation within the site be removed to provide greater working space and to provide a 'blank canvas' from which to develop the future site layout.

POTENTIAL IMPACTS

4.3 No impacts to tree root protection areas (RPA) are envisaged, and while the projected RPA of tree T1 extends approximately 1.7m into the site at the northern extent, no impacts are envisaged as no excavation is required here.

4.4 There is ample space within the site footprint to accommodate the associated plant, welfare, and resulting debris from demolition such that adjacent trees will not be affected, although some pruning will be required to avoid inadvertent damage to tree branches – including Tree T1, Group G1, G4 and G5.

4.5 It is recommended that the lower limbs of tree T1 be pruned to give at least 2m clearance from the building as the lower foliage currently rests on the roof.

4.6 The lower dropping branches from trees on the edge of the access road within group G1 should also be pruned to give at least 4.5m clearance from ground level to allow plant access into the site.

4.7 A small amount of drooping branch growth from two trees within group G4 will also need to be pruned to give at least 2m clearance from the building roof and any walls that are to be demolished. Similarly, the growth from group G5 will also need to be trimmed to give around 1-2m clearance between the roof to enable its demolition.

4.8 All pruning should be to a suitable growth point or to source, so that branch stubs are not left. The pruning should also be carried out by a suitably qualified and competent arboricultural contractor and in line with current best practice (*BS3998:2010 Tree Work – Recommendations*).

4.9 Providing the above recommendations are adhered to then the proposed tree works will not unduly affect tree health, nor will it spoil their appearance.

4.10 The Tree Implications Plan, provided at *Appendix C*, highlights the recommended removal and tree pruning.

4.11 Site hoarding will need to remain in situ to provide protection for adjacent trees and demolition should follow a top down, pull back methodology, always working away from trees. Given the space within the site this is considered entirely feasible.

APPENDIX A

SURVEY METHODOLOGY

On site data was recorded without the aid of a topographical survey, 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 (*Appendix D*) shows tree positions, numbers, retention categories and Tree Root Protection Areas (RPA). A schedule of the trees is included in *Appendix B*, which include species, physiological and structural condition, age, recommendations and quality categories. The survey methodology is described in *Appendix A*.

Tree and group locations were recorded with the use of a topographical survey and this is assumed to be accurate.

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.	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 constraint to development.
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 a material consideration in the planning process but may have other benefits that should be considered.

APPENDIX B

TREE DATA TABLE

Key to Inspection Report Form

Ref No.	Tree, group or hedge number, to correspond with all 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. Measured or estimated 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

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	Common alder	11	100	1	0.5	0.5	1	8	Poor	Dead	SM	Almost completely dead tree in car park.	U		<10	0.1
T2	Turkey oak	15	770	7	9	8	9	1.5	Good	Good	M	Fine tree in highway verge. Some naturally occurring deadwood in lower crown but no significant defects noted. Low branches on south side rests on roof of pub.	A	1,2	40+	0.2
Groups of Trees																
G1	London plane	12	300	4				2.5	Fair	Good	SM	Part of a longer thematic planting scheme along Springfield Blvd. Very positive visual and environmental value and good long term potential.	A	2	40+	3.6
G2	Horse chestnut	12	300	5				2	Fair	Fair	EM	Part of parks trust planting scheme in highway verge. Sporadic Horse chestnut growing through dense dogwood shrubs. Positions and dimensions estimated. Ivy beginning to smother some trees within. Positive feature in landscape.	B	2	20-40	3.6
G3	Ash, Horse chestnut	13	250	4				1	Fair	Good	EM	Part of a larger group of trees between open space and play areas. Congested in terms of planting density and some dieback in certain individual trees.	B	2	20-40	3.0
G4	Ash, Horse chestnut	14	300	5				2	Fair	Good	EM	Similar to previous. Some low branches on north side droop into site.	B	2	20-40	3.6
G5	Hazel	4	100	2				0	Fair	Good	EM	Area of shrubs between pub and open space. Some growth in contact with roof of pub.	C	2	20-40	1.2

Please see Appendix A and B for key of abbreviations and methodology.
Average heights, diameters and spreads given for group features.
BS5837 stem diameter calculation applied for multi stemmed trees.

APPENDIX C

TREE IMPLICATIONS PLAN

Springfield Boulevard

V8 Marlborough Street

Crown lift Plane trees (G1) on edge of access to give 4.5m clearance.

Reduce lowest drooping growth from T2 to give at least 2m clearance from building, Prune to suitable growth point or to source to avoid stubs being left.

Trim growth from Group G5 to clear building by 1m.

Prune drooping growth from group G4 to clear roof and walls by at least 2m.

Remove tree T1

G1

G1

T2

G5

G4

G3

G2

T1

2

3

4

PH

Key

Individual Trees

Existing crown spread with BS Category Colour.

Root Protection Area.

Tree trunk

T#

Tree number

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.

G#

Tree group number

Survey Area

Demolition to slab

Site Hoarding

BS 5837 Category Colours

Higher quality trees. Efforts should be made to integrate theses trees into design layouts and avoid their root protection areas.

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

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Client
CAMPBEL_PARK_PARISH COUNCIL

Project Title
FORMER_SPRINGFIELD_PUB
SPRINGFIELD_BOULEVARD

Drawing Title
TREE_IMPLICATIONS_PLAN

Drawn	Date	Scale	Paper Size	Dimensions	Rev.
DM	26.07.21	1:500	A3	M	0

Project No.	Drawing No.	Status
2160	1	FINAL

N

APPENDIX D

PHOTOGRAPHS

Tree T1 - Centre

Drooping growth of Tree T2 on roof.

Tree T2, Foliage on roof. Pruning recommended

Tree T2, Foliage on roof

Overhang from group G4, Pruning recommended.

Overhang from group G4

Group G5. Trimming to clear roof recommended.