

I A N K E E N
LIMITED



TREES
Constraints and Opportunities

LAND AT
WEST ROAD
SAWBRIDGEWORTH

Our Reference
JTK/8334/SO

CLIENT
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1. Introduction

- 1.1 Instructions were received from CSA Environmental Planning to attend the site to inspect the trees and identify the constraints and opportunities presented by them.
- 1.2 A site visit was made by Jago Keen, MSc, Dip.Arb., MArborA, MICFor on 30st January 2014.
- 1.3 The assessment has been carried out following the guidelines set out in *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations*.
- 1.4 Details of each individual tree or tree group are recorded in the Schedule of Trees at Appendix 1 of this report.
- 1.5 The location of trees and tree groups are shown on the Ian Keen Limited plan number 8189/01 entitled *Trees – Opportunities and Constraints Plan* at Appendix 2. The position of trees and trees groups are indicative only, and tree positions should not be relied upon for design or setting out. A topographical survey is required to identify the location of trees and tree groups after which a detailed tree survey in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations* is required.

2. Site Description

- 2.1 The site consists of a large arable field of irregular outline set to the north of West Road in Sawbridgeworth.
- 2.2 The site is bounded to the north and west by further fields and to the east by sports pitches and the grounds of a primary school. To the south fronting West Road the field shares a boundary with gardens of residential properties.
- 2.3 The site undulates across its extent with a low point in the south western corner.
- 2.4 Along the western boundary there is a public footpath alongside with runs a ditch and beyond that a stream.
- 2.5 There are no trees within the field itself with all trees set at the margins. All those trees are relatively young and many are the result of outgrown hedgerows.

3. Geology

- 3.1 The geological information has been taken from the British Geological Survey map of Great Britain. The geological information given in this report should not be relied upon by other parties who are advised to carry out their own assessment of the site conditions to suit their own needs.
Bedrock Geology
- 3.2 London clay formation - Clay, silt and sand. Sedimentary bedrock formed approximately 34 to 56 million years ago in the Palaeogene Period. Local environment previously dominated by deep seas.
Superficial deposits
- 3.3 Lowestoft formation - Diamicton. Superficial deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions.



4. The trees

- 4.1 As described above the trees at this site are to be found mainly in the field boundaries or within adjoining land.
- 4.2 Most of the trees in the hedgerows have arisen through a cessation of hedgerow management. This allows trees to develop and attain larger proportions. It is a common feature of rural landscapes in recent times and one that can be reversed by re-instigating the management regime.
- 4.3 Within adjoining land to the north is a row of poplar (number 6 in the schedule). These are still relatively young but have gained substantial proportions. They can attain 30m to 40m height but as they mature so they have a tendency to shed large branches. They are also prone to rapid decay once woody tissues are exposed from damage and pruning.
- 4.4 Along the eastern boundary, just outside the site and within a sports ground, is a row of mixed broadleaf trees (number 9) including field maple, hornbeam, ash and horse chestnut. The trees are generally in good condition and still relatively young. They are closely spaced and some selective thinning is appropriate to favour the better specimens and allow them to develop.
- 4.5 A maturing individual sycamore (number 12) stands to the east of the access road that serves the school and continues as a footpath toward the field. It has been the subject of pruning to reduce the size of its crown. In so doing some of its visual amenity has been lost however it still makes a contribution to the tree cover.
- 4.6 Within the school grounds there is a belt of trees (number 15) running against the eastern boundary of the field. I suspect this was planted as a shelter belt, given the species content and location, and has now reached a height beyond that required due to the competition between each tree. The close spacing has led to some of the individual trees being slender and generally a loss of low level branching, that provides shelter, is beginning to occur. Selective thinning to remove weaker and favour the better specimens is appropriate to ensure continuity of effective screening and shelter.
- 4.7 Two young trees are present within a residential garden to the south of the field. A Turkey oak (number 17) and an ash (number 18) both have the potential to attain significant proportions.

5. Opportunities and constraints

Hedgerows

- 5.1 The taller hedgerows provide some screening between the field and the adjoining land. Mostly this is at low level but the taller trees within the hedgerows offer screening at height.
- 5.2 Where intact, these hedgerows offer connectivity between other hedgerows or groups of trees that allows for species mobility.
- 5.3 On several boundaries the hedgerows are no longer intact. Isolated fragments of hedgerow remain that can be complemented to replace the feature. Conversely, because many are so fragmented it is not disruptive to create links through them, or to remove the isolated portions of hedgerow.

- 5.4 If hedgerows are retained or reinstated and they coincide with boundaries of individual properties it can be beneficial to exclude them from the property boundary and place them in common ground. In this way the hedgerow can be managed along its length in a common fashion and avoid varying management regimes and reduces the risk of loss.

Tree groups

- 5.5 The tree groups to the east of the site, within the sports and school grounds, have little impact upon the site. They are of a size where separation between the trees and built form is readily achievable.
- 5.6 The layout of built form would need to respect the root protection area of retained trees however given the size of the trees and the distance from the boundary I do not consider the protected area would extend within the site (there may be a very minor intrusion in places where larger trees are closer to the boundary but only a detailed survey would reveal this).
- 5.7 The built form would need to respect the fact that the trees are young so have potential to increase in height and spread. Positioning and orientation of buildings would need to take account of the trees.
- 5.8 The trees along the eastern boundary would cast some shade over gardens and dwellings close to the boundary. The shade would not be significant but will increase as the trees grow. As the shade occurs during the morning, that separation can be achieved, that people react in varying ways to shade, and that we are beginning to appreciate that some shade brings benefits to human wellbeing, I do not consider the shading will be unreasonable in this situation.
- 5.9 The poplars along the northern boundary are prone to large sections falling off and ingress of decay as they mature. They are not suited to retention close to dwellings or oft frequented open space, such as play areas. A scheme of built form that sought to place them in open space, remote from sensitive features, would be most appropriate.

Individual trees

- 5.10 The sycamore (number 12) is sufficiently remote from the extant access road, and has been pruned to control its dimensions, such that it does not pose a constraint on use of the road for access.
- 5.11 The Turkey oak (number 17) and the ash (number 18) have the potential to attain large proportions. They stand within adjoining land and are likely to be under the control of others so space should be allotted to them to allow them to develop. The Turkey oak can become very broad so would be unsuited to incorporation at the end of a conventionally sized garden.
- 5.12 There is concern at present about the impact ash dieback will have on our ash trees in this country. It is too early to be definitive on whether we will lose all ash trees and until more is known the advice is to retain as many Ash to determine if any are genetically resistant.

6. Legal constraints

- 6.1 Hedgerows may be protected under *The Hedgerow Regulations 1997* that prevents removal of certain 'important' hedgerows in agricultural settings. To be 'important' it must meet the criteria as laid down in the Regulations.

6.2 In this instance, and based on species composition alone, the hedgerows do not appear to qualify on the basis of number of woody species however there are other criteria, such as presence of 'features' that would probably see the inclusion of hedgerows 1 and 2 where it grows on a bank and adjoins the public right of way. Further, detailed checks in Spring and Summer can be made in due course to inform the planning process.

6.3 It has been confirmed to us in an email dated 6th February 2014 from East Herts Council that the site is not within a Conservation Area nor are there Tree Preservation Orders upon the adjoining trees.

7. New tree planting

7.1 In addition to the opportunities discussed in Section 5 the greatest opportunity presented by development of the site is to introduce new trees to this site. Replacement and new hedgerows can be installed to complement the current network and individual and groups of trees can be incorporated within the layout of built form.

7.2 In this instance opportunity presents itself to plant trees along the boundaries and within the layout of development. Planting can offer a diversity of planting styles including formal arrangements, semi-formal planting and linear features, such as hedges, that provide connectivity.

7.3 In offering a new age cohort of diverse trees, including many more forms of tree, both in terms of species and of provenance, the contribution to the overall quality of tree stock in the area can be substantial, resulting in a gain of biodiversity within the tree population and of the biodiversity supported by the trees. Diversity within the tree population provides resilience in the face of current, and future, pressures and ensures continuity of attributable ecosystem services. In essence, it is sustainability in tree cover.

7.4 A scheme of planting, that could include both native and non-native species that are large at maturity, would represent a significant contribution to the amenity of the area, that has seen little new tree planting in recent years, whilst fully observing the Government's planning policies contained in the *National Planning Policy Framework*, as well as current guidance to provide multiple benefits from trees in *Trees in the townscape: A guide for decision makers* produced by the Trees and Design Action Group.

7.5 Those multiple benefits of new tree planting, as part of the site's green infrastructure, include contribution to open space, enhancement of sustainable drainage systems, and enhancement of biodiversity. In addition, as those new trees develop, so they will further contribute to local climatic regulation and, where they stand within the sun path of proposed buildings or surfaces within the re-development, they will minimise solar gain during summer months, and provide an accessible choice of shade and shelter.

8. Conclusions

8.1 The site is predominantly free of trees other than those at the boundary.

8.2 Those trees at the boundaries offer little in the way of constraint to effective and efficient layout of built form as long as the few simple measures described above are observed to ensure their successful retention.

8.3 Ample opportunity exists to plant new trees on land devoid of trees, and in an area that has seen little new tree planting in recent times, to ensure a sustainable tree population is created.

- 8.4 Given the relative absence of constraints and the opportunities for tree planting I consider development of the site can be achieved with a net increase in the biodiversity of the tree population to provide sustainable development for future generations.

Signed:



Date: 4th February 2014



Appendix 1

SCHEDULE OF TREES

UPON LAND AT

**WEST ROAD
SAWBRIDGEWORTH**

**Our Reference
JTK/8334/so**

Key to Schedule of Trees

Column Heading	Explanation
Tree No.	Unique number corresponding with number on plan
Description	Brief description of the tree component including species (English names)
Comments	Overview of the tree component including dimensions where appropriate.

SURVEY OF TREES AT WEST ROAD, SAWBRIDGEWORTH

Tree No.	Description	Comments
1	Mixed broad leaf hedge including Field Maple and Blackthorn	At southern boundary of site with West Road. Hedge is circa 5 metres in height, having outgrown from previous management at circa 1.5 metres.
2	Outgrown hedgerow of predominantly Field Maple with some Hazel and Blackthorn	Grows on steep bank down to ditch that runs parallel with the public footpath. Field Maples to circa 11 metres height, 6 metre radial crown spread and 35 centimetres diameter. Offers some screening between field and properties along West Road.
3	Clumps of Hawthorn	Sporadic along line of ditch at western edge of field. Possibly remnants of former hedgerow. To circa 7 metres in height, 4 metres radial crown spread and multi-stemmed with stems averaging 10 centimetres diameter.
4	Blackthorn hedgerow	Growing on side of bank leading down to ditch. Height to circa 4 metres and 2 metres radial crown spread. Multi-stemmed with stems less than 10 centimetre diameter. Forms useful low level screen between fields. Hedge includes some Hazel and Field Maple.
5	Ash	Twin-stemmed tree growing on bank to ditch. Height of circa 10 metres and radial crown spread on average 4 metres. One stem circa 30 centimetres diameter and the other 20 centimetre diameter. Could be retained a feature tree along this otherwise barren edge of field.
6	Row of Hybrid Black Poplar	Row of trees on divide between fields. Currently at circa 17 metres height and 8 metres radial crown spread with stems of circa 40 to 50 centimetre diameter. These species are fast growing, can attain significant proportions and are prone to shedding large sections as they mature.
7	Predominantly Hawthorn hedge	Running along the same line as the Poplars. Offers good low level screening between fields but would benefit from management.
8	Predominantly Hawthorn hedge	Regularly maintained hedgerow to height of circa 2 metres. Other species include Privet and Field Maple. Offers good low level screening between adjoining fields.

SURVEY OF TREES AT WEST ROAD, SAWBRIDGEWORTH

Tree No.	Description	Comments
9	Row of predominantly Field Maple	Row of trees within adjoining sports ground. Trees less than 13 metres in height and 6 metres radial crown spread. Trunks between 25 and 40 centimetre diameter. Within the understorey is some Hawthorn and Blackthorn. Row of trees offers a good screen between the two adjoining pieces of land. Other trees present include Hornbeam, Ash and Horse Chestnut.
10	Predominantly Hawthorn hedgerow	To a height of circa 2 metres. Regularly maintained to control its height and width.
11	Predominantly Blackthorn scrub	Broad band of Blackthorn scrub together with some Field Maple. Height is less than 9 metres and radial crown spread less than 3 metres. Stems tending to be less than 15 centimetres in diameter. Thick band of scrub having developed on section of land running between school grounds and residential dwelling.
12	Sycamore	Standing within adjoining open space to east of school access road. Has been crown reduced in the past and is now circa 15 metres height with a radial crown spread of 7 metres and a trunk of circa 60 centimetre diameter.
13	Cherry Laurel hedge	Recently planted hedge of circa 2 metres height. Associated with new dwelling.
14	Predominantly Hawthorn hedgerow	Regularly maintained hedgerow to control its height and width. Currently circa 3 to 4 metres in height with stems up to 10 centimetres diameter. Offering good low level screening between school grounds and field.
15	Row of mixed broad leaves	Linear collection of trees growing within school grounds. Species include Sycamore, Alder and Scots Pine. Trees on average are 14 metres in height with 6 metres radial crown spread and stems up to 45 centimetres diameter.
16	Predominantly Hawthorn hedgerow	Hedgerow that is regularly maintained to contain its spread on the western side. Height now circa 5-6 metres and stems less than 10 centimetres diameter. Offers good low level screening between school grounds and field.

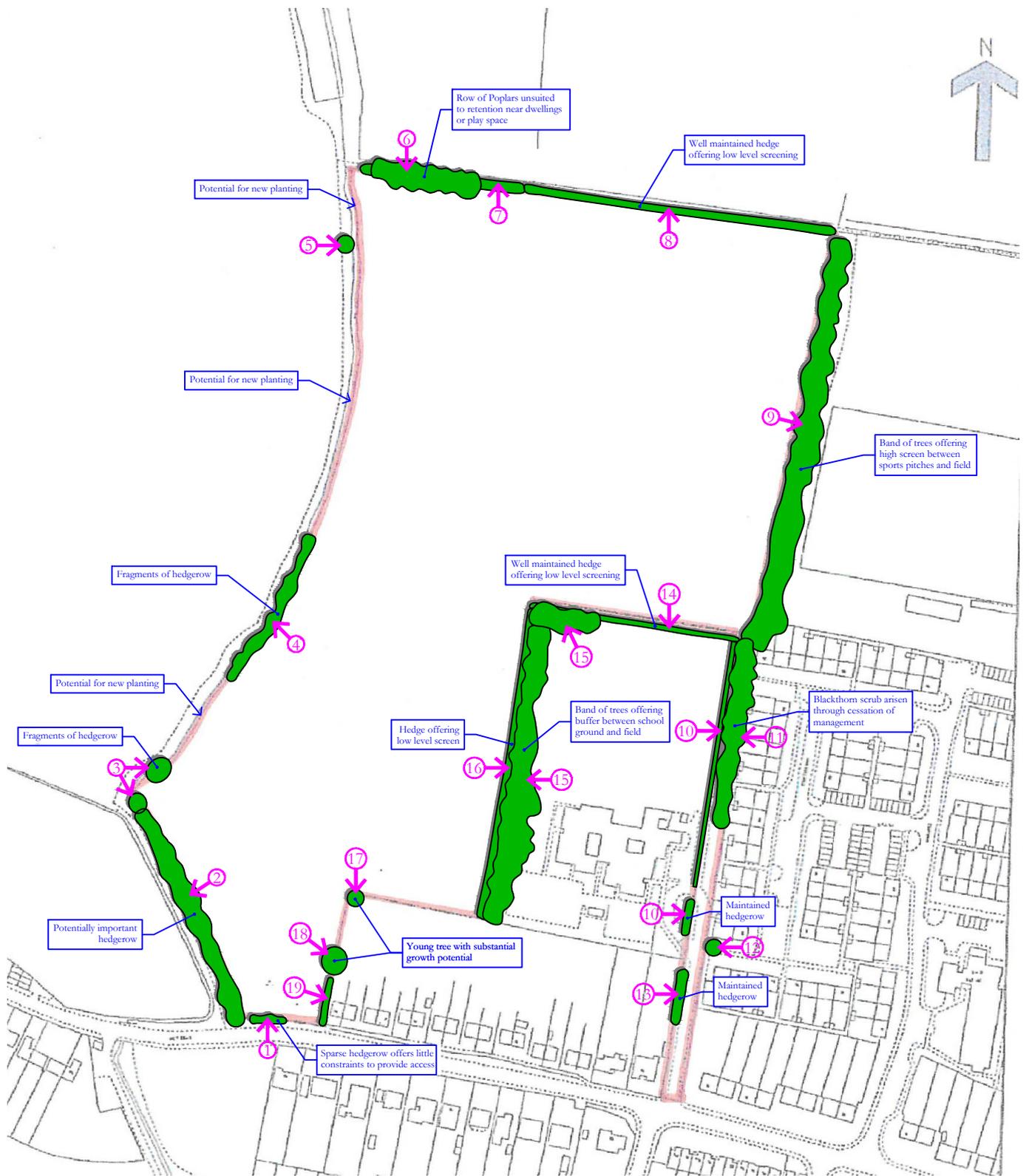
SURVEY OF TREES AT WEST ROAD, SAWBRIDGEWORTH

Tree No.	Description	Comments
17	Turkey Oak	Young tree growing within curtilage of adjoining residential garden. Tree of circa 9 metres in height with an average radial crown spread of 4 metres together with a trunk of circa 15 centimetre diameter. Young tree with potential to form a large tree at maturity.
18	Ash	Young tree growing within curtilage of adjoining residential garden. Tree of circa 14 metres in height with an average radial crown spread of 6 metres together with a trunk of circa 40 centimetre diameter. Young tree with potential to form a large tree at maturity.
19	Predominantly Privet hedgerow	Regularly maintained in height and width and currently circa 3 metres high with stems less than 5 centimetres diameter. Provides useful evergreen screening between property and field.

Appendix 2

**TREES - OPPORTUNITIES &
CONSTRAINTS PLAN
Drawing number 8334/01**

**Our Reference
JTK/8334/so**



Key:

-  Tree compartment
-  Tree number

CLIENT: CSa Environmental Planning	
PROJECT: Land at West Road, Sawbridgeworth	
TITLE: Trees - Opportunities & Constraints Plan	
DRAWING NUMBER: 8334/01	
STATUS: For Information	
DATE: Feb 2014	SCALE: NTS
DRAWN BY: ML	CHECKED BY: JTK
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