AMENDED

Tilia Tree Consulting
28 Cragston Avenue
Grimsby
DN33 2AU
Tel - 07847 587147  e-mail - tiliajfr@gmail.com

# PRE-DEVELOPMENT IMPACT ASSESSMENT AND REPORT ON TREES

AT

## BROOK HOUSE FARM
## CHURCH STREET
## HIBALDSTOW
## BRIGG
## NORTH LINCS
## DN20 9RA

CLIENT - JAMES CAVILL PROPERTIES LTD

# CONTENTS

# 1.0 INTRODUCTION

## 1.1 Purpose of the Report

This report is intended for use by my client as a pre-development impact assessment of trees in relation to proposals to develop the site for residential housing. It shall not apply to any other use or purpose.

## 1.2 Terms of Reference

I am instructed to prepare the report by my client -
Mr James Cavill, James Cavill Properties Ltd, 29 Redbourne Road, Hibaldstow, Brigg DN20 9NU.
The instruction was confirmed in the form of an e-mail dated 21 August 2019.

## 1.3 Documents Received

Two site plans drawn and issued by my clients' agent TAS Building Design, Brigg, have assisted in the preparation of this report. They are numbered 14709 A0001 and 14709 A0004.

## 1.4 Scope of the Report

I have agreed with my client that I adhere to the following brief when preparing the assessment and report;

1 Visually assess 2 trees on the proposed development site.
2 Comment on their condition and suitability for retention.
3 Provide a report complying with British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations' which gives management recommendations to assist in mitigating any potentially adverse effects of the development, including a tree protection plan and a summarised arboricultural method statement.

## 1.5 Limitations

The report is limited to describing the trees indentified in the report, the potential effects of the construction and methods by which to mitigate their impact. The visual inspection was made from ground level. No other tests have been conducted, either by myself or by others under my direction, nor have I recovered any samples for testing by a third party.

# 2.0 SITE DESCRIPTION AND PROTECTED STATUS OF TREES

## 2.1 Site description

The proposed development site stands to the north of Church Street and west of Barnside in the centre of Hibaldstow village. The site is a former potato storage yard which is now overgrown with herbaceous weeds, grasses and woody weeds such as brambles and coppice shoots. The site is fenced by chainlink and is relatively level. Its only built features are concrete pads where roads and buildings once stood. A shallow beck flows along the northern boundary crossed by a concrete bridge from Beckside, beside which grow the two trees in question.

### 2.2 Protected status of the trees

The trees are afforded the protection of the North Lincolnshire Borough Council Tree Preservation (Church Street/Barnside, Hibaldstow) Order 2003 and are listed on the 1st Schedule of the Order as T6 and T7. This information was confirmed by reference to information held in our archive. As such, any remedial works recommended for the trees in this report will require the written consent of the Council unless issued as a condition of planning permission.

## 3.0 DISCUSSION

### 3.1 Overview of the trees

| **TPO Number** and BS5837 Retn Code | Species | Age class | Physio-logical condition | Structural condition | Height (m) | Crown spread (m) | DBH (mm) | RPA radius (m) |
|---|---|---|---|---|---|---|---|---|
| **T6**<br>C2 | Golden weeping willow *Salix x chrysocoma* | M | Fair | Fair/Poor? | 18 | N - 7<br>S - 10.5<br>E - 8<br>W - 5 | ± 750 (ivy) | 10.0 |
| **T7**<br>C2 | Golden weeping willow | M | Fair | Fair | 15.5 | N - 7<br>S - 8<br>E - 9<br>W - 4 | 695 | 8.5 |

#### 3.1.1 Willow T6

The tree is the westernmost of the pair and stands further into the site from Beckside. The root collar, trunk and major limbs are all densely colonised by ivy preventing clear visual assessment of its structural integrity and any major defects. The crown is heavily biased to the south due to the former presence of T5 (felled some years ago) and from persistent pruning to clear the roadside. Defective branches are visible in the canopy where decay has formed due to the occurrence of pruning and failure, eg at 7m in the southern quarter. Dead wood to 100mm in diameter exists in the central crown. The outer canopy continues to function and exhibits normal growth rates. However, its density is thinner than would normally be expected for the species in good physiological condition..

#### 3.1.2 Willow T7

The root collar, trunk and major limbs remain sound. Parts of the upper crown are dying back in places, notably in the western quarter. The upper canopy is generally thinner than would normally be expected for the species and contains dead wood to 50mm throughout. The crown has had to be persistently reduced to the north in order to clear the road.

### 3.2 Potential impact of the construction on the trees

The design of the scheme places the garage of Plot 11 and the garage and rear projection of Plot 10 within the Root Protection Area (RPA) of T6. The garage of Plot 10 also stands within the RPA of T7. The root spread of willow can extend considerably beyond the dripline of the crown. The structures noted above are therefore located in positions which could have an adverse impact on their future health and stability.

### 3.3 Mitigating the effects of constructing the services

If the trees are retained, it is likely that root damage and related impairment of both willows will take place unless adjustments to the design can be made. Only by altering the layout will it be possible to maintain a suitable distance between the buildings on Plots 10 and 11 and both trees. The tree protection plan marked on the Existing Block Plan 14709 A0001 shows the actual crown dimensions and the proposed location of the protective fencing if the trees are to be retained. At the site clearance phase, the removal of the existing concrete pads to the south of T6 in particular will require considerable care so as not to dig deeper than necessary. The mechanical scraping of vegetation must also be carried with extreme care so as to avoid damage to major surface roots. The protective fencing is set out in order to delineate the area where no construction activity shall take place.

### 3.4 General constraints and mitigation measures

British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations', lays out specific guidelines for excluding access to the RPAs. It illustrates an acceptable type of protective fencing. The fencing can be formed from "Heras" type panels but must be fixed into the ground on stakes to discourage its casual re-positioning. The fencing should stand on the line of the RPA as marked on the plan. Signs bearing the words "No Entry – Tree Root Protection Area" should be fixed to the fencing. The RPAs are necessary to prevent damaging excavations and soil compaction by machinery as well as safeguarding against the spillage of toxic fuels or chemicals which, if they occurred within the root zone of retained trees, would cause irreparable long-term damage or tree death. The RPA fencing must only be removed once the project nears completion.

## 4.0 CONCLUSIONS

### 4.1 Condition of the trees

Both willows are approaching the later stages of their safe useful life expectancy and stand within falling distance of the cottages on the northern margin of Beckside. Both trees are currently making healthy growth but their crown densities are thinner than should be expected in this species growing with normal health and vigour. There is evidence of minor branch failure around both crowns and the incidence of dead wood is greater than usual. I cannot comment on the integrity of T6 due to the density of the ivy which obscures all the main structural parts.

### 4.2 Classification of the trees under BS5837:2012

My assessment of the trees under BS 5837:2012 is that they are both classified as C2, "Trees of low quality but retainable in short - medium term (at least 10 years) in low-grade groups or those offering temporary screening benefits. I consider that they would be better replaced at the pre-development stage with new tree stock of more appropriate species within a landscape scheme agreed with the local planning authority.

### 4.3 Potential retention of the trees

If the LPA insists on retaining the willows, it is likely to require adjustments to be made to the layout of the scheme. However, their continued presence will also dominate the rear garden of Plot 10 in particular and the situation is likely to lead to persistent requests to prune or remove the trees Physical protection in the form of secure fencing compliant with BS 5837:2012 will be required to ensure that damage to the RPA is avoided once site clearance and construction work begins.

## 5.0 RECOMMENDATIONS

### 5.1 Tree management recommendations

Neither tree is in good general health and both are reaching the end of their safe useful life expectancy. I am firmly of the opinion that their removal and replacement with several trees of more appropriate species tailored to the site conditions and street scene would be the better option. If, however, the LPA insists on their retention, the following work recommendations should be carried out;

**Willow T6**

Clean out the ivy and review the tree's structural condition. If it is deemed structurally sound, clean out the dead wood and broken branch stubs. Reduce and re-shape the southern quarter of the crown by approximately 3m to balance the crown spread with the remaining quarters. Finish the pruning cuts to suitable secondary growths. Also ensure any stray branch tips encroaching on Beckside are pruned back to within the site boundary.

**Willow T7**

Clean out the dead wood and broken branch stubs. Also ensure any stray branch tips encroaching on Beckside are pruned back to within the site boundary.

### 5.2 Construction management recommendations

Appendix A gives specific recommendations for the method and sequence of operations for the construction. Its purpose is to guide the contractor in taking the most effective approach to conserving the retained trees.

**John F Robinson NDArb**
Arboricultural Consultant
20 September 2019

# APPENDIX A

## SUMMARISED ARBORICULTURAL METHOD STATEMENT

**Site - Brook House Farm, Hibaldstow, Brigg, North Lincolnshire**

**Scope of Works**
The proposal for the site is a small residential development with associated services. The purpose of this method statement is to raise awareness and give guidance in conserving two weeping willow during the project by sequentially programming the various aspects which could impact upon them.

A Appoint competent, licensed arboricultural contractors to complete the tree works as agreed with the local planning authority and in accordance with the arboricultural report recommendations.

B The developer will set out approved fencing around the margin of the Root Protection Area exclusion zone and fix it to the ground before any work begins on the site. The exception may be where the existing concrete pads encroach within the RPA.

C Manually clear vegetation from within the RPA. A mechanical excavator ***must not*** be used within this area.

D Excavate the existing concrete pads within the RPA by extending the machine's arm into the area and lifting/dragging the concrete back outside the RPA.

E Re-affix the protective fencing and maintain it in situ until the completion of the construction phase.

F Complete the landscape works taking care not to excavate deeply into the topsoil within the RPA.

# APPENDIX B

## GLOSSARY OF TECHNICAL TERMS USED

### AGE CLASSIFICATIONS

| | |
|---|---|
| M Mature | Tree exhibiting moderate vigour and aged between 50% - 80% of projected normal life expectancy. |

### CONDITION

| Description | Physiological | Structural |
|---|---|---|
| Fair | Tree of moderate or low vigour and reasonable health. No discernible pathogenic activity. Projected life expectancy of 10 - 25 years. | Tree in generally sound state with occasional minor rectifiable defect or storm damage. No discernible pathogenic activity or alteration in adjacent ground conditions. |
| Fair/Poor | | |
| Poor | Tree of declining vitality with abnormally small or discoloured foliage. Fungal pathogens may/may not be present. Projected life expectancy of less than 10 years. | Tree exhibiting significant structural defects, storm damage and/or fungal pathogens. Crown can also be of poor form. Ground conditions may have been significantly altered so as to impair or weaken root structure. |

Under British Standard 5837:2012, the tree retention category C2 is described in simplified terms below;

C Trees of low quality but retainable in short - medium term (at least 10 years).
2 Trees in low-grade groups or those offering temporary screening benefits.

**N, SW, E** etc. — Cardinal compass points

**Crown reduction** — The pruning back of branches at the outer edge of the canopy to finish at a suitable secondary growth point. In the case of the weeping willows in question, the pruning will refer to the lateral growths at the sides of the crown.

**Decline** — The failing vigour of the tree's crown health, particularly where dead wood is present in the outer parts of the crown. Decline is often associated with additional symptoms such as the presence of fungal infection or other diseases.

# APPENDIX C

## SURVEY CONDITIONS AND METHODS

**1 Date and time of inspection**

Afternoon of Friday 6 September 2019

**2 Persons present**

John F Robinson - Tilia Tree Consulting
Liz Woods - Tilia Tree Consulting
James Cavill of James Cavill Properties Ltd was present at the outset of the inspection.

**3 Weather conditions**

Weather conditions at the time of the inspection were warm and bright with a moderate to fresh north-westerly breeze.

**4 Survey methods**

The trees have been visually inspected from ground level.

**5 Equipment used**

The following equipment has been used during the site inspection to determine the data given.

| | |
|---|---|
| Height - | Clinometer |
| Crown spread - | Surveyor's tape measure |
| Diameter at breast height (1.5m) - | Diameter tape measure |

# APPENDIX D

## PHOTOGRAPHS

**Photograph 1 -** showing the asymmetric crown habit of T6 looking north-east from within the site.

**Photograph 2 -** showing the decay following an old branch failure wound at 7m on the south side of the crown.

**Photograph 3 -** showing the abnormally thin crowns of both trees (T7 to the left and T6 to the right).

**Photograph 4 -** showing the proximity of the crown of T7 beginning to overhang the street on Beckside. Also note the lack of crown density of the tree.

# APPENDIX E

## John Fraser Robinson

### Professional qualifications and experience

**Qualifications**

National Diploma in Arboriculture (BTEC)
Professional Tree Inspection Award (LANTRA)

**Experience**

John Robinson has been working with trees since 1976.

1976 - 1978 Earl of Yarborough, Brocklesby Park, Lincolnshire
Forestry Department trainee woodman.

1978 - 1981 Merrist Wood College, Worplesdon, Guildford
Whilst on industrial placement during the second year of the 3 year course, he gained further experience as an arboricultural trainee with Sheffield City Recreation Department. Individual placements within the department yielded specific experience in tree surgery operations, tree inspections and surveys, plant material handling and nursery practices.

1981 - 2018 Lindsey Tree Services Ltd.
He established the company as a sole trader on leaving Merrist Wood College. Based in Grimsby, the firm served the northern parts of Lincolnshire and surrounding districts as arboricultural contractors and consultants and became a partnership in 1982. He successfully expanded the business and became managing director when the firm incorporated in October 2001. It continues trading to date. The daily organisation of the business yielded routine experience in hazard tree evaluation, decay detection assessments and in compiling arboricultural method statements and risk assessments. He retired from Lindsey Tree Services Ltd in September 2018 to concentrate on his own arboricultural consultancy under the name Tilia.

2018 - present Tilia Tree Consulting
He has established his own consulting business, drawing on over 40 years of experience and knowledge of the specialist field of arboriculture.

He has advised and prepared reports on a wide range of tree issues since 1981. Clients include social housing providers, local authorities, utilities, health authorities, architects, developers and conservation organisations. Further wide experience has been gained in reporting for householders, landowners and their agents, consulting engineers, loss adjusters and solicitors. He has been called as an expert witness on a number of occasions, giving evidence both in court and to planning inquiries on matters involving trees and tree preservation order appeals.

**Professional Association**
He has been an Associate member of the Arboricultural Association since 1981 and subscribes to its programme of Continuing Professional Development. He served on the Association's Northern Branch Committee from March 2001 until February 2014.