TREE CONSULTANTS

# ARBORICULTURAL REPORT

to BS 5837:2012 at:

***Cranswick Convenience Foods,***
***Meadowgate,***
***Wombwell,***
***Barnsley,***
***South Yorkshire***
***S73 0UN***

Prepared for:
***buildinglinkdesign***
*15 Thorne Road,*
*Doncaster,*
*South Yorkshire*
*DN1 2HG*

Date: *February 2021*

Reference: *AWA3630*

Institute of Chartered Foresters
Registered Consultant

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# Contents

# 1. Introduction

## 1.1 Instructions and Brief

1.1.1 We have been instructed by buildinglinkdesign to visit the site and prepare our findings in a report.

1.1.2 The report is required in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations,* to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

## 1.2 Survey Details

1.2.1 The survey took place during February 2021.

1.2.2 The trees were surveyed visually from the ground using "Visual Tree Assessment" techniques and in accordance with the guiding principles of British Standard 5837:2012.

1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.

1.2.4 The tree positions were plotted on an Ordnance Survey map base-layer using enhanced GPS technology (1-2m accuracy) and laser distance measurer.

1.2.5 This report has been prepared by Mr Adam Winson Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principle and Director of AWA Tree Consultants Ltd. The tree survey data collection was carried out by Mr James Brown BSc (Hons) Arboriculture, MArborA, PTI (Lantra) Arboriculturist at AWA Tree Consultants Ltd.

1.2.6 Full qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5**.

# 2. The Site

## 2.1 Location and Description

2.1.1 The site is located on Meadowgate in Wombwell, in the Metropolitan Borough of Barnsley, South Yorkshire. The eastern area of the survey predominantly comprises a car park of a food factory and the western area of the survey comprises a plot of vacant scrubland situated at the end of an access road.

2.1.2 The approximate areas of the survey are highlighted in the (2018 Google Earth) image below:

# 3. The Trees

## 3.1 Legal

3.1.1 An online search was undertaken with Barnsley Metropolitan Borough Council on the 17th of February 2021 to check whether any trees at the site are protected by a Tree Preservation Order (TPO) or whether the site is located within a Conservation Area. As of this date no trees at the site are legally protected.

3.1.2 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a further check should be made with the Local Planning Authority to confirm if any trees are covered by a Tree Preservation Order or are within a Conservation Area. If either applies, then statutory permission is required before any works can take place (unless such works are approved by planning permission).

3.1.3 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.

3.1.4 All tree work should be carried out according to British Standard 3998:2010 *Tree Work - Recommendations*.

## 3.2 Tree Survey Results

3.2.1 The tree survey revealed 39 items of woody vegetation, comprised of 33 individual trees and 6 tree groups or hedges.

3.2.2 Of the surveyed trees: 1 tree is retention category 'U', 1 tree group is retention category 'B', and 37 trees, tree groups or hedges are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).

3.2.3 Trees and hedge T1 to T17 are young to semi mature amenity plantings situated in and around the car park of the food factory.

3.2.4 Collectively T1 to T17 provide some amenity value to the site, but individually the trees and hedge are all of low arboricultural value.

3.2.5 Trees T1, T2, T4, T5 and T6 appear to have been heavily pruned or 'topped' in the past and this will likely limit their future prospects.

3.2.6 The crown of Willow T3 is close to coming into contact with the factory building and Rowan T6 is close to coming into contact with a boundary fence.

3.2.7 Recent ground disturbance appears to have taken place around the base of T9, T10, T14, T15 and T16, and this may have a negative impact on the trees.

3.2.8 Rowan T8 is in poor condition with a significant snapout from its stem, and considerable dieback and deadwood in its crown, and is recommended for removal regardless of development at the site.

3.2.9 G18 forms an adjacent linear group of young to semi mature trees separating the factory site from the adjacent road to the south. The group is predominantly comprised of Willow, Birch and Cherry, with a shrubby Cherry Laurel understorey. The tree group was largely inaccessible and so was only given a cursory inspection with measurements estimated and condition values indicative only. Collectively G18 forms a significant landscape feature and provides screening between the site and the adjacent road, but the individual trees which comprise the group are of relatively low value individually.

3.2.10 Trees and tree groups T19 to T39 are situated in and around the plot of vacant scrubland at the end of an access road.

3.2.11 Trees and tree groups T19 to T23, T25, T28 to T31, T33, T36 and T38 are self set natural regeneration and are of very low value.

3.2.12 Poplar T24 is the largest, most established tree and is in relatively good overall condition, but its species characteristics mean it would be unsuitable to retain close to a new development at the site.

3.2.13 Birch T34, T35 and T37 and Lime T39 are small amenity plantings. T37 and T39 are in good condition, while T34 and T35 have been previously 'topped' and this will likely limit their long term value.

3.2.14 G26, G27 and G32 form boundary tree groups or hedges which provide established screening from the adjacent land. G27 is comprised of Hawthorn with occasional Elder and is in keeping with the surrounding landscape character. G26 and G32 are comprised of Cherry Laurel. G26 is situated in an adjacent garden and so was only given a cursory inspection with measurements estimated and condition values indicative only. G26 has been well managed while G32 is largely unmanaged.

3.2.15 The tree Root Protection Area (RPA) for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.

3.2.16 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of the low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

## 3.3 Arboricultural Development Advice

3.3.1 The retention category 'B' tree group, and where suitable, the retention category 'C' trees, tree groups and hedges with reasonable future prospects should be retained as part of any new development. However, care should be taken to avoid misplaced tree retention. Attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

3.3.2 If required by the development proposals, occasional lower value, retention category 'C' trees, tree groups and hedges could be removed, and replacement planting would largely mitigate their losses.

3.3.3 The tree Root Protection Area (RPA), detailed on the Tree Constraints Plan at Appendix 5, should be used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.

3.3.4 If construction of new buildings is required within the RPA of retained trees it may be possible to employ special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation.

3.3.5 Construction of hard surfaces, for drives and paths, within the RPA can have negative impacts on tree roots. However, the potential negative impacts can often be overcome or minimised by employing a 'no-dig' type construction method with a porous final surface.

3.3.6 The design of the new development should consider tree crown positions in relation to any new dwellings. The dappled shade of a tree is more pleasant than the deep shadow of a building, and some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. Whilst either shade or sunlight might be desirable, depending on the potential use of the area affected, the design should avoid unreasonable obstruction of light and should give adequate provision for future tree growth.

## 3.4 Protection of the Retained Trees

3.4.1 The retained trees may require protection by fencing in accordance with BS 5837:2012, during the development phase.

3.4.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

# 4. Signature

I trust this report provides all the required information.

Signed

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**Adam Winson**, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, AIEEM.*

**24th February 2021**

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# Appendices

# Appendix 1: Authors Qualifications & Experience

**Mr Adam Winson** *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered*

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years, and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the Crown Court.

**Mr James Brown** *BSc (Hons) Arboriculture, MArborA, PTI (Lantra)*

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. James previously worked in Europe's largest tree nursery and has experience of Local Authority tree officer work. His main work consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

**Mr Dave Farmer** *FdSc Arboriculture, MArborA, PTI (Lantra)*

Dave has a Foundation Degree in Arboriculture (with Distinction) and is qualified in Professional Tree Inspection. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. Dave has many years of experience within the tree care profession, including lecturing in arboriculture. His work focuses on diagnosing potential tree risk problems, and recommending appropriate treatments and work programmes.

**Dr Felicity Stout** *Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA, PTI (Lantra)*

Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced Social Forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and has published in The Arboricultural Journal on this subject.

**Mr Tom Readman** *Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA*

Tom joined AWA from his previous role as a tree risk surveyor with Harrogate Borough Council, where he undertook tree risk surveys at a range of sites and prescribed suitable works. Tom also has extensive previous experience as a climbing arborist. Tom achieved at Distinction Star, and was recognised as the student of the year, in the Extended Diploma in Forestry and Arboriculture and is now completing a Foundation Degree in Arboriculture, while working at AWA. Tom's work focuses on tree risk surveys and accurate tree data collection for development projects to BS 5837:2012.

# Appendix 2: Survey Methodology and Limitations of Report

The survey was undertaken in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations.* The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS 5837:2012 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - '*Tree Work: Recommendations'*.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

# Appendix 3: Explanation of Tree Descriptions

**HEIGHT** of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

**CROWN HEIGHT** is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

**STEM DIAMETER** is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

**CROWN SPREAD** is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

**AGE CLASS** of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

**PHYSIOLOGICAL CONDITION** is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

**STRUCTURAL CONDITION** is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

**LIFE EXPECTANCY** is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

**Retention Categories**

**A (marked in green on Appendix 5) = retention most desirable.** These trees are of very high quality and value with a good life expectancy.

**B (marked in blue on Appendix 5) = retention desirable.** These trees are of good quality and value with a significant life expectancy.

**C (marked in black on Appendix 5) = trees which could be retained.** These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

**U (marked in red on Appendix 5) = trees unsuitable for retention.** These trees are in such a condition that any existing value would be lost within 10 years.

| | Tree Species | | | Measurements | | | | Crown (m) | | | | | Tree Condition | | | | | | | Value | | Management |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tree ID* | *Common Name* | *Latin Name* | *Maturity* | *Height (m)* | *Stems* | *Stem Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T1 | Birch | *Betula pendula* | Young | 5.5 | 1 | 110 | No | 2 | 1.5 | 1.5 | 2 | 1.5 | No visual defects | Single stemmed. Slight lean east. Old pruning wounds | Old pruning wounds. Minor deadwood. Previously topped | Previously topped at 5m to 5.5m. Previous minor reduction works to crown. | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T2 | Birch | *Betula pendula* | Young | 5.5 | 1 | 150 | No | 2 | 2 | 2 | 2 | 2 | No visual defects | Single stemmed. Slight lean east | Minor deadwood. Previously topped | Previously topped at 5m to 5.5m. Previous minor reduction works to crown. | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T3 | Willow | *Salix caprea* | Semi-mature | 10 | 2 | 230, 200 | No | 1.5 | 3 | 3.5 | 4.5 | 4 | No visual defects | Twin stemmed at base. Vertical. Tight unions. Partially included bark. Old pruning wounds. Bark damage. Fungal brackets | Old pruning wounds. Minor deadwood | Two co-dominant main stems with partially included bark union. Previous minor reduction and lifting works undertaken to crown, predominantly to clear building. Bark damage and *Auricularia auricula-judae* fungal brackets to stems. | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T4 | Birch | *Betula pendula* | Young | 5.5 | 1 | 160 | No | 2 | 2 | 2 | 2.5 | 2 | No visual defects | Single stemmed. Vertical. Tight unions. Old pruning wounds | Minor deadwood. Old pruning wounds. Previously topped | Two co-dominant stems at 1.5m with partially included bark union. Previously topped at 5m to 5.5m. Previous minor reduction works to crown. | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |

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| | Tree Species | | | Measurements | | | | Crown (m) | | | | | Tree Condition | | | | | | | Value | | Management |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tree ID* | *Common Name* | *Latin Name* | *Maturity* | *Height (m)* | *Stems* | *Stem Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T5 | Cherry | *Prunus sp.* | Semi-mature | 4 | 2 | 160, 110 | No | 2 | 1.5 | 1.5 | 2 | 2 | Exposed roots | Twin stemmed at base. Vertical. Old pruning wounds. Tight unions. Partially included bark. Stubs | Old pruning wounds. Rubbing limbs. Minor deadwood | Two co-dominant stems at base with partially included bark union. Heavily pruned into shape. | Fair | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T6 | Rowan | *Sorbus sp.* | Semi-mature | 5 | 1 | 140 | No | 2.5 | 2.5 | 2.5 | 2.5 | 1.5 | No visual defects | Single stemmed. Slight lean east. Bark damage | Old pruning wounds. Minor deadwood | Crown in contact with fence to east. Old pruning wounds in crown from where pruned from fence. | Good | Good | 10 to 20 yrs | Low | C | No works required in current site context |
| G7 | Beech | *Fagus sylvatica* | Semi-mature | 1.5 | 10 | 20 | No | 0 | See plan | | | | Managed Beech hedge | | | | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |
| T8 | Rowan | *Sorbus sp.* | Young | 4 | 1 | 80 | No | 2.5 | 1 | 1 | 1.5 | 1 | No visual defects | Single stemmed. Vertical. Bark damage | Old pruning wounds. Moderate dieback. Minor deadwood. Minor snapout | Situated in strip bed in car park. Significant snapout from lower northern crown leaving wound. Significant dieback in crown with lots of minor deadwood, snapouts and old pruning wounds. | Poor | Fair | <10 yrs | Low | U | Removal recommended regardless of development |
| T9 | Rowan | *Sorbus sp.* | Semi-mature | 6 | 1 | 150 | No | 2.5 | 2.5 | 2.5 | 1.5 | 1.5 | Exposed roots. Ground disturbance | Single stemmed. Slight lean north east. Bark damage | Minor deadwood | Strap tied around stem. Cable through crown. Lots of ground disturbance around base with exposed roots. | Good | Good | 10 to 20 yrs | Low | C | No works required in current site context |

| | Tree Species | | | Measurements | | | | Crown (m) | | | | | Tree Condition | | | | | | | Value | | Management |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tree ID* | *Common Name* | *Latin Name* | *Maturity* | *Height (m)* | *Stems* | *Stem Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T10 | Birch | *Betula pendula* | Semi-mature | 6 | 2 | 100, 120 | No | 2 | 3 | 3 | 3.5 | 1.5 | Exposed roots. Ground disturbance | Twin stemmed at base. Significant lean south east. Bark damage. Old pruning wounds | Minor deadwood. Old pruning wounds | Growing through fence. Two co-dominant main stems. Lots of ground disturbance around base with exposed roots. | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T11 | Birch | *Betula pendula* | Semi-mature | 10 | 1 | 160 | No | 2 | 2 | 2.5 | 2.5 | 2.5 | No visual defects | Single stemmed. Vertical | Old pruning wounds | Occasional minor old pruning wounds in crown | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |
| T12 | Birch | *Betula pendula* | Semi-mature | 10 | 1 | 160 | No | 1.5 | 3 | 3 | 3 | 3 | Exposed roots | Single stemmed. Slight lean east | Old pruning wounds | | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |
| T13 | Birch | *Betula pendula* | Semi-mature | 8 | 2 | 130, 100 | No | 1 | 3 | 3 | 3 | 2.5 | Exposed roots | Twin stemmed at 1m. Slight lean south east. Old pruning wounds. Bark damage | Normal | | Good | Good | 10 to 20 yrs | Low | C | No works required in current site context |
| T14 | Birch | *Betula pendula* | Semi-mature | 7 | 4 | 40, 40, 80, 60 | No | 0.5 | 2 | 2.5 | 2.5 | 2 | Exposed roots. Ground disturbance | Multiple stemmed at base. Vertical. Tight unions. Old pruning wounds | Minor deadwood. Rubbing limbs | Ground disturbance around base | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |
| T15 | Rowan | *Sorbus sp.* | Semi-mature | 5.5 | 1 | 140 | No | 1.5 | 1 | 1.5 | 2.5 | 2 | Exposed roots. Ground disturbance | Single stemmed. Significant lean south east | Minor deadwood | Lots of ground disturbance around base with exposed roots | Good | Good | 10 to 20 yrs | Low | C | No works required in current site context |

| | Tree Species | | | Measurements | | | | Crown (m) | | | | | Tree Condition | | | | | | | Value | | Management |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tree ID* | *Common Name* | *Latin Name* | *Maturity* | *Height (m)* | *Stems* | *Stem Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T16 | Rowan | *Sorbus sp.* | Semi-mature | 6.5 | 1 | 140 | No | 1.5 | 0.5 | 2 | 3 | 2 | Exposed roots. Ground disturbance | Single stemmed. Significant lean south east | Minor deadwood | Lots of ground disturbance around base with exposed roots | Good | Good | 10 to 20 yrs | Low | C | No works required in current site context |
| T17 | Rowan | *Sorbus sp.* | Young | 3 | 1 | 70 | No | 1 | 1 | 2 | 1 | 0.5 | No visual defects | Single stemmed. Significant lean east. Epicormic growths | Old pruning wounds. Minor deadwood | | Good | Good | 10 to 20 yrs | Low | C | No works required in current site context |
| G18 | Birch. Willow. Cherry. Cherry Laurel. | *Betula sp. Salix sp. Prunus sp.* | Semi-mature | 10 | 10 | 120 | Yes | 2 | See plan | | | | Adjacent linear group of young to semi mature trees separating site from adjacent road. Situated behind fence. No access. Predominantly Birch, Willow and Cherry with Cherry Laurel understorey. | | | | Fair | Fair | 20 to 40 yrs | Moderate | B | No works required in current site context |
| T19 | Cherry | *Prunus sp.* | Semi-mature | 10 | 2 | 130, 140 | No | 1 | 4 | 4 | 3.5 | 3.5 | Exposed roots | Twin stemmed at 0.5m. Bark damage. Tight unions. Bleeds. Vertical | Minor deadwood | Growing from base of boundary fence. Fence embedded in base of stem. Two co-dominant main stems. Crown in contact with and growing through fence. Large exposed root at base. | Fair | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T20 | Field Maple | *Acer campestre* | Young | 7 | 1 | 80 | Yes | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | Limited access around base | Single stemmed. Vertical | Normal | No access. Crown in contact with and growing through fence. | Good | Good | 10 to 20 yrs | Low | C | No works required in current site context |

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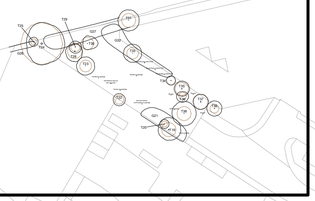
| | Tree Species | | | Measurements | | | | Crown (m) | | | | | Tree Condition | | | | | | | Value | | Management |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tree ID* | *Common Name* | *Latin Name* | *Maturity* | *Height (m)* | *Stems* | *Stem Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| G21 | Hawthorn | *Crataegus monogyna* | Young | 6 | 10 | 50 | No | 0.5 | See plan | | | | Sporadic group of shrubby Hawthorn | | | | Good | Fair | 20 to 40 yrs | Low | C | No works required in current site context |
| T22 | Hawthorn | *Crataegus monogyna* | Semi-mature | 6 | 6 | 50 | Yes | 1 | 2 | 2 | 2 | 2 | Limited access around base | Multiple stemmed at 0.5m. Vertical. Bark damage. Tight unions | Minor deadwood | Adjacent, no access. Growing through fence. | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T23 | Willow | *Salix caprea* | Young | 6 | 10 | 50 | No | 0.5 | 3 | 3 | 3 | 3 | Exposed roots | Multiple stemmed at base. Vertical. Old pruning wounds. Stubs. Tight unions. Partially included bark | Minor deadwood. Old pruning wounds | Multiple stemmed with numerous tight unions and partially included bark | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T24 | Poplar | *Populus x canescens* | Semi-mature | 16 | 1 | 560 | No | 3 | 7 | 7.5 | 7 | 5 | Increased soil level | Single stemmed. Vertical. Old pruning wounds. Bark damage | Minor deadwood. Old pruning wounds | Increased soil level to south and east from piled spoil. Wire embedded in stem. Occasional old pruning wounds in crown from previous minor pruning works. | Good | Good | 20 to 40 yrs | Moderate | C | No works required in current site context |
| T25 | Rowan | *Sorbus sp.* | Young | 7 | 1 | 80 | Yes | 3 | 1.5 | 1.5 | 1.5 | 1.5 | Limited access around base | Single stemmed. Vertical | Minor deadwood | Limited access. Rope tied around stem. | Fair | Fair | 10 to 20 yrs | Low | C | No works required in current site context |

| | Tree Species | | | Measurements | | | | Crown (m) | | | | | Tree Condition | | | | | | | Value | | Management |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tree ID* | *Common Name* | *Latin Name* | *Maturity* | *Height (m)* | *Stems* | *Stem Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| G26 | Cherry Laurel. Ash. | *Prunus sp. Fraxinus sp.* | Semi-mature | 5 | 10 | 20 | Yes | 0 | See plan | | | | Adjacent managed linear group of Cherry Laurel with occasional Ash sapling | | | | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |
| G27 | Hawthorn. Elder. | *Crataegus sp. Sambucus sp.* | Semi-mature | 6 | 10 | 60 | No | 0.5 | See plan | | | | Linear boundary linear group of shrubby Hawthorn and occasional Elder. Increased soil level to south and east from piled spoil. | | | | Fair | Fair | >40 yrs | Low | C | No works required in current site context |
| T28 | Willow | *Salix caprea* | Young | 7.5 | 3 | 110, 120, 110 | No | 2 | 2.5 | 2.5 | 3.5 | 3 | Exposed roots | Multiple stemmed at 0.5m. Slight lean south. Tight unions. Partially included bark. Old pruning wounds. Stubs. Bark damage | Minor deadwood | Numerous tight unions and partially included bark | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T29 | Hawthorn | *Crataegus monogyna* | Young | 4 | 6 | 50 | No | 0.5 | 2 | 2 | 2 | 2 | No visual defects | Multiple stemmed at base. Vertical. Old pruning wounds. Stubs. Tight unions | Minor deadwood | | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |

| | Tree Species | | | Measurements | | | | Crown (m) | | | | | Tree Condition | | | | | | | Value | | Management |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tree ID* | *Common Name* | *Latin Name* | *Maturity* | *Height (m)* | *Stems* | *Stem Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T30 | Buddleia | *Buddleia sp.* | Mature | 5.5 | 8 | 60 | No | 1.5 | 2.5 | 3.5 | 2 | 1.5 | No visual defects | Multiple stemmed at base. Slight lean. Bark damage. Tight unions. Partially included bark. Old pruning wounds. Stubs. Epicormic growths. Minor cavities. Minor decay. Rubbing stems. Split stems | Minor deadwood. Old pruning wounds. Minor snapout | Large Buddleia. Numerous old pruning wounds, stubs and tight unions. Occasional snapouts from stems and crown. Occasional split stems. | Fair | Poor | 10 to 20 yrs | Low | C | No works required in current site context |
| T31 | Willow | *Salix caprea* | Young | 11 | 10 | 60 | Yes | 1 | 3.5 | 3.5 | 3.5 | 3.5 | Limited access around base | Multiple stemmed at base. Vertical | Normal | No access. Likely adjacent. | Fair | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| G32 | Cherry Laurel. Hawthorn. | *Prunus sp. Crataegus sp.* | Semi-mature | 4 | 10 | 20 | No | 0 | See plan | | | | Dense boundary group of Cherry Laurel with occasional Hawthorn sapling. Larger and taller at western end. | | | | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |
| T33 | Willow | *Salix caprea* | Young | 6 | 10 | 50 | No | 1 | 3 | 3 | 3 | 3 | Limited access around base | Multiple stemmed at base. Vertical. Tight unions. Partially included bark | Old pruning wounds. Minor deadwood | Limited access due to dense shrubs | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |

| | Tree Species | | | Measurements | | | | Crown (m) | | | | | Tree Condition | | | | | | | Value | | Management |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tree ID* | *Common Name* | *Latin Name* | *Maturity* | *Height (m)* | *Stems* | *Stem Diameter (mm)* | *Estimated* | *Ave Height* | *N* | *E* | *S* | *W* | *Roots* | *Stem* | *Crown* | *Comments* | *Physiological* | *Structural* | *Life Expectancy* | *Amenity* | *Category* | *Works* |
| T34 | Birch | *Betula pendula* | Young | 5 | 1 | 120 | No | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | No visual defects | Single stemmed. Vertical | Old pruning wounds. Previously topped | Previously topped at 2.5m | Fair | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T35 | Birch | *Betula pendula* | Semi-mature | 7.5 | 1 | 180 | Yes | 1 | 2.5 | 2.5 | 2.5 | 2.5 | Limited access around base | Single stemmed. Vertical | Old pruning wounds. Previously topped | Limited access due to dense shrubs. Previously topped at 2m. | Fair | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T36 | Alder | *Alnus sp.* | Young | 7 | 1 | 100 | No | 1 | 1.5 | 2 | 2 | 2 | No visual defects | Single stemmed. Slight lean south east | Normal | Shrubs prevented detailed inspection of base | Good | Good | 10 to 20 yrs | Low | C | No works required in current site context |
| T37 | Birch | *Betula pendula* | Semi-mature | 10 | 1 | 200 | Yes | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 | Limited access around base | Single stemmed. Vertical | Normal | Limited access due to dense shrubs | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |
| T38 | Willow | *Salix caprea* | Young | 8.5 | 10 | 60 | No | 0.5 | 4 | 4 | 4 | 4 | No visual defects | Multiple stemmed at base. Vertical. Tight unions. Partially included bark | Normal | Multiple stemmed at base with numerous tight unions and partially included bark | Good | Fair | 10 to 20 yrs | Low | C | No works required in current site context |
| T39 | Lime | *Tilia sp.* | Young | 8 | 1 | 120 | Yes | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 | Limited access around base | Single stemmed. Vertical | Normal | Adjacent. Limited access due to dense shrubs. | Good | Good | 20 to 40 yrs | Low | C | No works required in current site context |

View 3



View 2

NORTH

AWA TREE CONSULTANTS

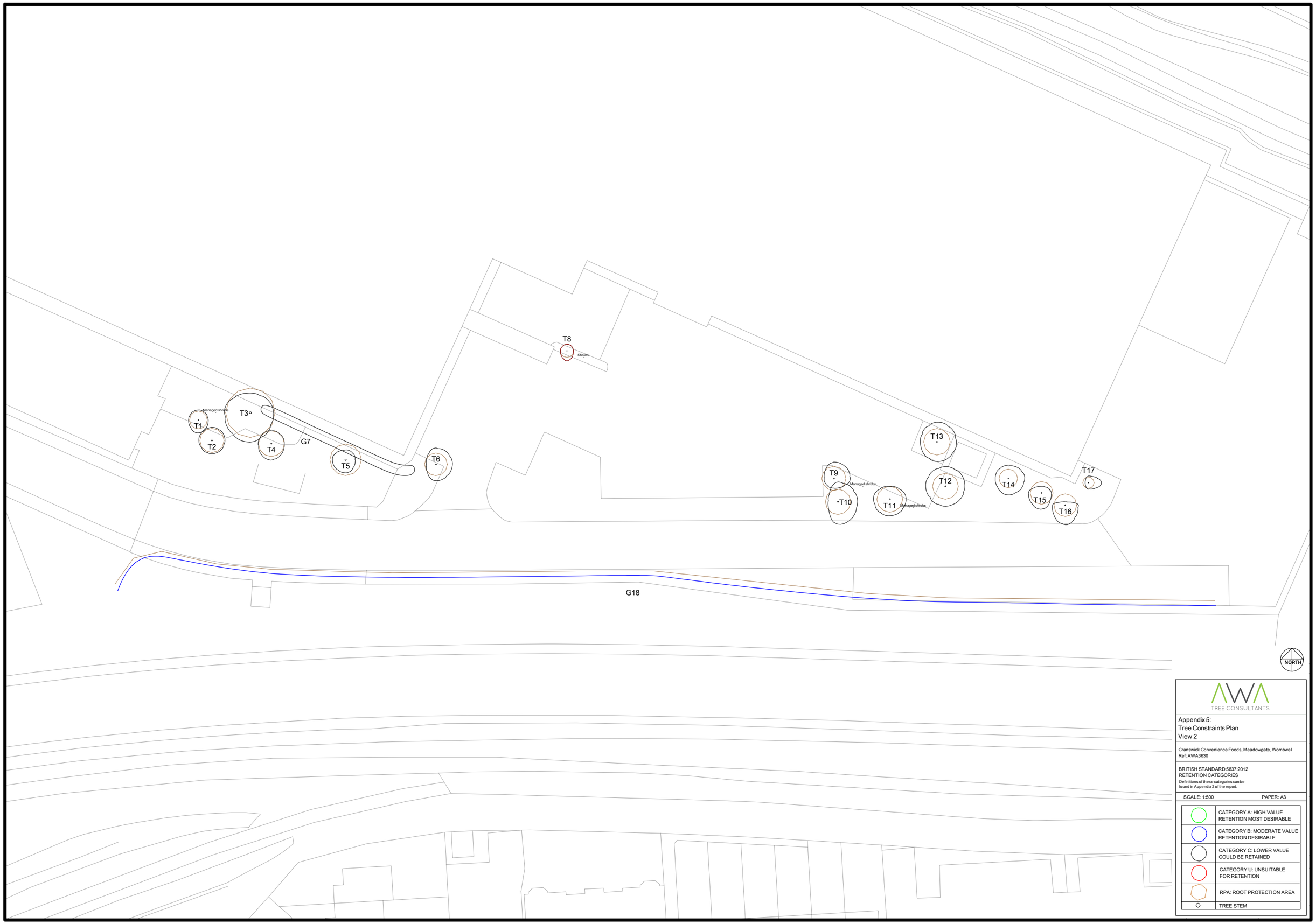
Appendix 5:
Tree Constraints Plan
View 1

Cranswick Convenience Foods, Meadowgate, Wombwell
Ref: AWA3630

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:1000 PAPER: A1

| | |
|---|---|
| | CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE |
| | CATEGORY B: MODERATE VALUE RETENTION DESIRABLE |
| | CATEGORY C: LOWER VALUE COULD BE RETAINED |
| | CATEGORY U: UNSUITABLE FOR RETENTION |
| | RPA: ROOT PROTECTION AREA |
| | TREE STEM |




AWA TREE CONSULTANTS

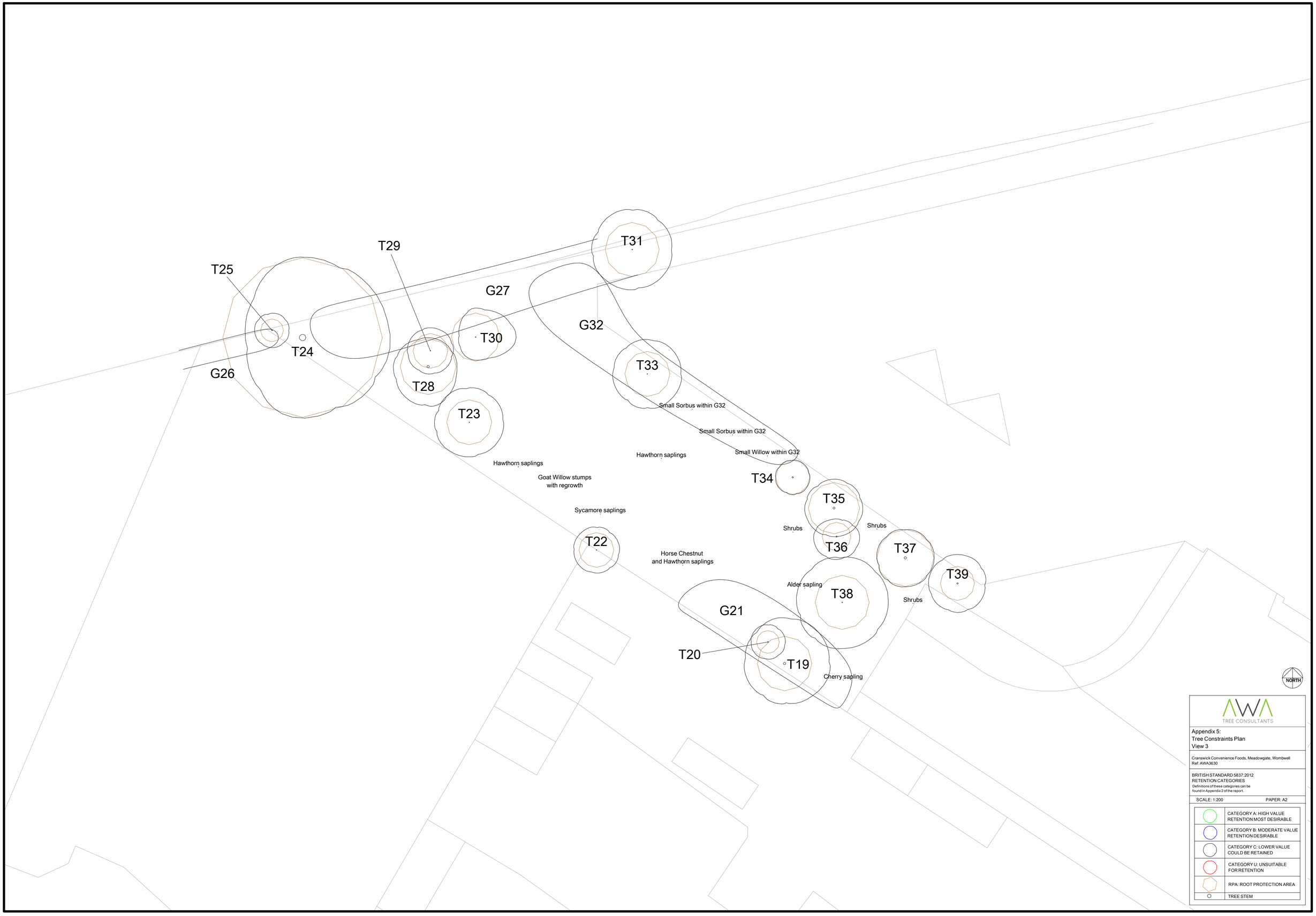
Appendix 5:
Tree Constraints Plan
View 2

Cranswick Convenience Foods, Meadowgate, Wombwell
Ref: AWA3630

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:500 PAPER: A3

| | |
|---|---|
| | CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE |
| | CATEGORY B: MODERATE VALUE RETENTION DESIRABLE |
| | CATEGORY C: LOWER VALUE COULD BE RETAINED |
| | CATEGORY U: UNSUITABLE FOR RETENTION |
| | RPA: ROOT PROTECTION AREA |
| | TREE STEM |


T25
T29
T31
G27
G32
T24
T30
T33
G26
T28
T23
Small Sorbus within G32
Small Sorbus within G32
Small Willow within G32
Hawthorn saplings
Hawthorn saplings
Goat Willow stumps
with regrowth
T34
T35
Sycamore saplings
Shrubs
Shrubs
T22
T36
T37
T39
Horse Chestnut
and Hawthorn saplings
Alder sapling
T38
Shrubs
G21
T20
T19
Cherry sapling
NORTH
AWA
TREE CONSULTANTS
Appendix 5:
Tree Constraints Plan
View 3
Cranswick Convenience Foods, Meadowgate, Wombwell
Ref: AWA3630
BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be
found in Appendix 2 of the report.
SCALE: 1:200
PAPER: A2
CATEGORY A: HIGH VALUE
RETENTION MOST DESIRABLE
CATEGORY B: MODERATE VALUE
RETENTION DESIRABLE
CATEGORY C: LOWER VALUE
COULD BE RETAINED
CATEGORY U: UNSUITABLE
FOR RETENTION
RPA: ROOT PROTECTION AREA
TREE STEM