

Preliminary Arboricultural Impact Assessment

BS5837:2012 Trees in Relation to Design, demolition and construction –
Recommendations



SITE REFERENCE:	Wrexham Technology Park
REFERENCE:	DEV016.WAL.04GM
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1.0 Introduction

- 1.1 We are instructed by Cadnant Planning / Hatrick Property to undertake a scoping tree survey in accordance with BS5837:2012 'Trees in relation to design, demolition and construction-Recommendations'.
- 1.2 The application relates to the proposed development of a site on the Wynnstay Technology Park.
- 1.3 The site survey was undertaken on the 22nd and 25th July 2016 and the following report is based upon the findings of that visit and the conditions found on that day.
- 1.4 We have been provided with an historic management plan (2008) produced by the Landscape Planning Group.

2.0 Scope & Objectives

- 2.1 This report has been commissioned by Cadnant Planning on behalf of Hatrick Property and the scope of the report reflects their instructions.
- 2.2 The scope of this report is limited to a preliminary appraisal of the existing trees on (and/or adjoining) the site and identification of the implications of development on retained trees.
- 2.3 The brief is to appraise the trees in relation to the proposed development of the site in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.
- 2.4 To prepare clear recommendations supported by relevant plans and data in order to facilitate consideration of the Arboricultural implications.
- 2.5 To consider the development proposals, identify areas where there are arboricultural issues and to recommend possible solutions.
- 2.6 To consider additional information supplied, to identify arboricultural issues arising from this information and to recommend possible solutions.
- 2.7 This report is not a Tree Risk Management Report or a Hazard Analysis Report and its use as such is invalid.
- 2.8 The trees have been assessed from ground level only. Assessment of condition is based on a visual tree assessment (VTA). No detailed inspection of the upper crown has been carried out.
- 2.9 No decay detection equipment (destructive or non-destructive) has been used to further assess the condition of the trees, which is beyond the scope of the survey. Any dangerous trees requiring further assessment on safety grounds will be identified.

- 2.10 Due to the changing nature of trees and other site circumstances this report and any recommendations made are limited to a 5-year period. Any alteration to the application site or any development proposals could change the current circumstances and may invalidate this report and any recommendations made. Should this be the case this report will require revision to reflect the development Proposals.
- 2.11 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer damage under average conditions. Regular inspections can help to identify potential problems before they become acute.
- 2.12 A lack of recommended work does not imply that a tree is safe and likewise it should not be implied that a tree will be made safe following the completion of any recommended work.
- 2.13 Tree dimensions were measured using a combination of a Trupulse 200 Laser Range Finder, a Leica Disto Laser Rangefinder and a Richter Diameter tape. All instruments were used in accordance with appropriate user guides.
- 2.14 No soil samples were taken and no soils analysis was undertaken.
- 2.15 Any legal description or information given to Arbor Consultancy Limited is believed to be accurate.
- 2.16 Where solutions to arboricultural issues are specified which require the usage of a third party product or specialist design e.g. pile and beam foundations, no dig roadway construction etc. No liability is assumed for the performance or suitability of the product and specialist advice as to the suitability or installation of the product should be sought from the manufacturer or other specialist.
- 2.17 No responsibility is assumed by Arbor Consultancy Limited for legal matters that may arise from this report, and the consultant shall not be required to give testimony or to attend court unless additional contractual arrangements are made.
- 2.18 Any alteration or deletion from this report shall invalidate it as a whole.

3.0 Site Description

- 3.1 The site at Wynnstay Technology Park is an open area of brownfield land that has not been developed. The northern boundary (Llangollen Road) and the western boundary (Plas Bennion Road) of the site are comprised of a bund, the edge of which with the road contains some mature trees.
- 3.2 In the past the bund was planted with some trees i.e. one Oak together with Silver Birch and Alder. Some trees were planted as part of the management plan produced by the Landscape Planning Group in 2008 (the scheme was for 5 years).
- 3.3 The rest of the wooded area comprises self-set specimens.
- 3.4 The bulk of the site was cleared historically and over time the site has been colonised by pioneer / scrub species such as willow / hawthorn / birch etc. The photo below shows an aerial photo of the site in 2006 and gives an indication of the history.



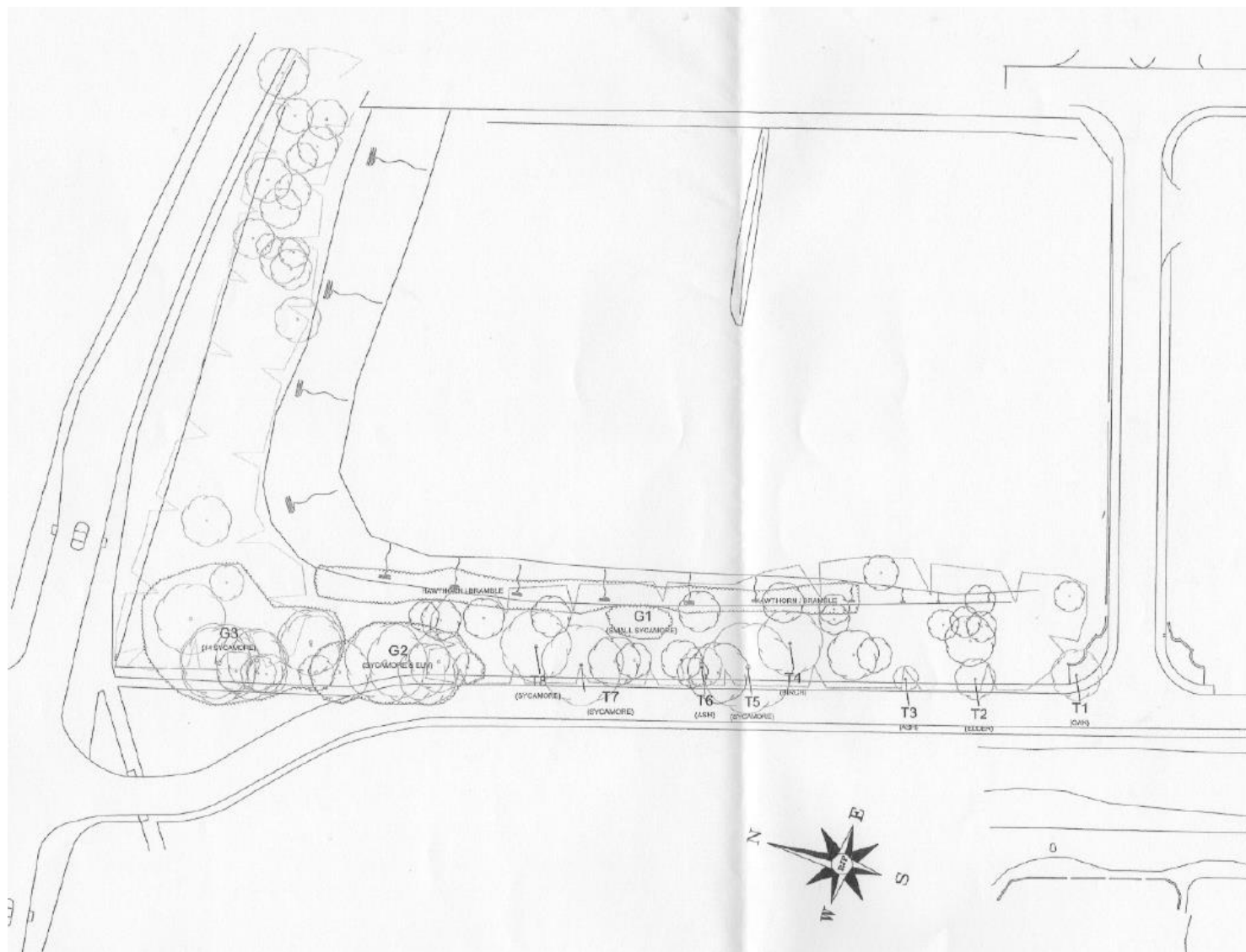
4.0 Development Proposal

- 4.1 The proposal involves the regeneration of the site to provide a mixed retail / residential and light industrial development.
- 4.2 In order to achieve the development it is proposed to create a new site entrance on to Plas Bennion Road.



5.0 Tree Survey

- 5.1 The overview survey of the trees was carried out on the 22nd and 225th July 2016. The Landscape Planning Group survey and maps formed the basis of the inspection and their grouping / plans have been used as a reference.
- 5.2 The significant trees within the group bounding Plas Bennion Road are the individual trees (T1 to T9) and three groups of tree (G1 to G3). The individual trees comprise one Oak, an Ash, two Birch and five Sycamores, while group G1 is comprised of self-set Sycamore of little significance. Group G2 is comprised of Sycamore and Elm (some of which are now dead) and group G3 is comprised of 14 large Sycamore.
- 5.3 The centre of the site is populated by groups of self-set Willow / Hawthorn / Birch and are of no arboricultural significance.
- 5.4 The woodland is generally very poor. Internally there is very little light and there is no understorey or shrub layer other than a blanket of Ivy this appears to in spite of the additional planting referenced in the Management Plan and is possibly due to the density of the canopy.
- 5.5 The trees are in a poor condition in some instances following fires / vandalism.
- 5.6 The woodland is being used for fly-tipping / drinking and other anti-social activities.
- 5.7 The planting does provide screening into and out of the site.





The proposed location of the new entrance on to Plas Bennion Road runs through the edge of group G2 which is composed of early mature Sycamore with a small Elm component.

This will require the removal of several trees of limited arboricultural significance.

6.0 Arboricultural Impact Assessment

6.1 The development is focussed on the flat area inside the bund and with the exception of the creation of the new access on to Plas Bennion road no development is proposed which will influence the trees on the bund.

6.2 Recent research (as posted by Arboricultural Association Wales) has indicated that in a situation where trees grown in similar situations (such as the Root morphology along Pembrokeshire hedgebanks) suggest that the majority of the structural roots spread laterally along the embankment with minor roots and the occasional adventitious root likely to spread beyond the hedge bank base and into the adjacent landscape, we believe that it is reasonable to apply this to the situation at Wynnstay Industrial Park where the trees are growing on an artificial bank.

This is down to two main reasons:

- i) Natural root development – the roots will predominantly grow into the available soil medium; namely the bank
- ii) Historic ground disturbance on the adjacent land (ploughing/compaction/development etc) which can sever/curtail the root system.

6.3 The impact in terms of root spread in relation to development constraints

For Large trees; it is advised that the standard BS5837 calculations are used and modified where necessary - such as extending the RPA along the hedgebank laterally by 15 times diameter and narrowing the spread outwards.

Hand-dug trial holes in proximity to the base of the hedgebank can also be of assistance in clarifying the root spread more accurately.

6.4 Accordingly the Root Protection Area of the retained trees on the bund does not extend significantly into the site and as such all proposed development internal to the site will not impact on the retained trees.

6.5 As part of the general landscaping / improvement of the site it is proposed to thin out the woodland group, removing the poorer self-set specimens and opening up the canopy to create a more open and light wooded screen. This will help with reducing anti-social activity (by removing some of the cover), reduce opportunities for fly tipping and well as improving the stratification and health of the group.

6.6 In order to facilitate the development a number of trees will need to be removed from the group G2 in order to create the new entrance onto Plas Bennion Road. We believe that the loss of amenity is limited and that this will be more than adequately compensated for through the proposed woodland landscape improvements.

7.0 Potential incursions in to the RPA (Root Protection Area)

- 7.1 Other than the creation of the new entrance we do not believe that there will be any incursions in to the root protection areas of retained trees.

8.0 Conclusion and recommendations

- 8.1 A preliminary arboricultural assessment was undertaken in response to a proposed development.
- 8.2 With exception of the new entrance point the proposed development is considered to be outside the RPA of retained trees and as such is not considered to be detrimental.
- 8.3 The new entrance point will require the removal of a section iof the boundary group G2 which is comprised of self-set Sycamore and Elm. We do not consider that these trees are arboriculturally significant and we believe that their loss can be more than adeuqtely compensated by improving the rest of the boundary group.
- 8.4 As part of the overall landscape improvements it is proposed to selectively thin the boundary group to increase light, improve the potential for woodland stratification and address issues associated with the existing wooded area of antisocial behaviour and fly tipping.
- 8.5 We consider that provided development were to proceed in accordance with the recommendations and method statements contained within this report that the development can proceed without detriment to the retained trees.
- 8.6 All technical issues relating to arboriculture should be addressed to Arbor Consultancy Ltd in the first instance.

9.0 Images



General Site



Internal to woodland showing poor quality

11.0 Images



The bund (note dense ivy coverage)



View of general site