

Arboricultural Report

Presented to:

Mr. S Michael

Regarding:

Whitewalls

Station Road, Chirk

LL14 5BQ

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1.0 Introduction

- 1.1 TGM Arboricultural Consultancy has been instructed to undertake a health and safety assessment of all trees situated within the garden at Whitewalls, Station Road, Chirk LL14 5BQ, and make recommendations for their management.
- 1.2 A site visit was undertaken by the author, unaccompanied on 10th February 2018. The weather conditions during the survey were dull and overcast with some rain which posed a minor constraint to survey as light levels were low and the underside of branches appeared silhouetted. In addition, when wet bark appears darker and defects can be masked by this effect.
- 1.3 Several of the trees are coniferous and as such assessment of their upper canopies was restricted by dense foliage. Epicormic growth also restricted assessment for some trees. Binoculars were utilised in order to aid assessment of all visible major branches from the ground. Aerial inspection has been recommended where further assessment is required and is noted in Appendices 1 & 2, Tree and Group Survey Data.
- 1.4 The survey was completed in compliance with the Visual Tree Assessment methodology (VTA) as devised by Prof. Dr. Claus Mattheck. VTA is an internationally recognised industry standard for tree inspection.
- 1.5 Whitewalls is a residential property in Chirk. The 30mph public highway Station Road runs parallel to the western site boundary. The north, east and south site boundaries border additional residential properties. The site comprises extensive gardens to the north, south and west of the property itself including formal tree planting, hedges, screen planting, lawns and shrub beds, and wooded groups.
- 1.6 The dominant tree species are: Douglas fir (*Pseudotsuga menziesii*) and Lawson cypress (*Chamaecyparis lawsoniana*) however, several other coniferous and broadleaf species are present as recorded in the survey data. The majority of the trees are semi mature and in a good condition. Notable or significant defects are discussed in section 3 of this document.
- 1.7 A staggered row of Douglas fir runs to the north of the access driveway and along the site boundary. A bungalow is situated against this boundary in the adjacent

residential plot. The majority of the trees are of a similar age however there are 3 (T11, T13, T18) that appear to have been established first given their larger stem diameter. (Photograph 1)

- 1.8 The topography of the garden is relatively flat although the driveway accessing the property ascends gently to the house itself. There is also a short, abrupt slope between the property and Group 11 for the remainder of the garden. The gardens are well maintained with shrubs and ivy being kept clear of the trees. Where ivy has begun to encroach on trees its presence has been noted with recommendations made to continue its control in order to facilitate future inspections.
- 1.9 The author holds the HNC in Arboriculture and LANTRA Professional Tree Inspector qualifications and has worked in the arboricultural industry for 16 years; as a consultant arborist, local authority tree officer and lecturer in arboriculture.

2.0 Report Limitations

- 2.1 This report relates specifically to the condition of the tree upon the day that the inspection was carried out.
- 2.2 Inspection was carried out from ground level, with use of binoculars where necessary. No climbing inspection was conducted.
- 2.3 No analysis of soil samples was undertaken. Root areas and possible underground conflict interaction were only investigated insomuch as a surface visual inspection.
- 2.4 All legal documentation and information given to and used for the purposes of this report by TGM Consultancy is presumed accurate.
- 2.5 The report is valid only for typical weather conditions. Healthy trees, or parts of healthy trees, may fail in unusually high or unpredictable winds or violent storms and as such the consequences of such weather phenomena are unforeseeable. It follows that TGM Consultancy cannot be held liable for any such failures.
- 2.6 There is no such thing as a safe tree. The law recognises this and focuses upon the concept of 'reasonably foreseeable' incidents. In commissioning this report, you fulfil part of your duty of care under common law and the Occupiers Liability Acts 1957 & 1984. Other legislation may also apply.

- 2.7 These trees may fall under the protection of the Local Council. As such, permission may be required before works begin. It should be noted that the Local Council may not share the views presented in this report. It is understood that the property falls within a Conservation Area as maintained by Wrexham County Borough Council.
- 2.8 All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means; electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without the written permission of TGM Consultancy. Its content and format are for the exclusive use of the addressee in dealing with this claim / site / situation. It may not be sold, lent, hired out or divulged to any third party not directly involved in this claim / site / situation without written consent from TGM Consultancy.

3.0 Findings

- 3.1 The trees are generally in a good condition with no significant visible defects noted and limited management prescriptions made at this time. Full tree and group schedules can be found in Appendices 1 & 2 of this report although any notable factors are discussed in this section. The individual trees are discussed first, followed by the tree groups.
- 3.2 T1 – T19 run along the access driveway and border the site. Epicormic growth was noted in several of the trees and recorded where excessive. In addition, T18 and T19 both have several minor deadwood branches. Both epicormic growth and deadwood are likely to have been caused by soil compaction occurring as vehicles utilise the adjacent gravel driveway. Soil compaction can be extremely detrimental to trees as it creates anaerobic conditions impairing tree root function. (LONSDALE 1999) No remedial action has been specified at this time however, the trees have been scheduled for a more regular inspection regime to monitor the situation. (Photographs 1 & 2)
- 3.3 T2, Douglas fir, has a small hanging branch in the top of the crown and a hazard beam from a previous leader failure. Hazard beams are types of branches susceptible to longitudinal splitting that have varying significance dependent on

- their size and location. (LONSDALE 1999). No remedial action has been specified for the hazard beam at this time. The origin of the hanging branch is unknown as no wound could be seen from the ground in either T2 or the adjacent trees. As such recommendations have been made to remove the hanging branch and complete an aerial inspection to confirm its origin in order to ensure there is no further need for remedial work. This can be completed by the climbing arborist instructed to complete removal of the hanging branch and must be documented.
- 3.4 T11, Douglas fir, has notable epicormic growth throughout its crown posing a constraint to assessment. Given its location immediately adjacent to the bungalow in the adjacent plot an aerial inspection has been recommended to assess for defects. The results of the inspection must be documented.
- 3.5 T30 is a newly planted Rowan (*Sorbus aucuparia*) with two epicormic shoots on its main stem that have been recommended for removal. This is to prevent them from developing into competing branches. Removal now will result in small wounds that will quickly occlude and be of little consequence to the tree.
- 3.6 T34, Lawson cypress, has 3 longitudinal splits in the bark on the north side of the stem. Although they appear superficial they are only on the one side and are somewhat larger than would be expected for usual bark cracks and fissures. As such their presence has been noted to allow them to be monitored at future inspections.
- 3.7 T35, Yew, has stem and crown epicormics that appear to be as a result of soil compaction. The epicormic growth has been pruned to shape the lower canopy. Its removal has not been recommended at this time. (Photograph 6)
- 3.8 T36, Cherry species, has not been recommended for any work however, has been significantly reduced previously due to a large stem wound and decay. It must be noted that as the new shoot growth that currently makes up the crown of the tree matures it will become susceptible to failure, as it exceeds its optimum size, and as such remedial works will be required in the future.
- 3.9 Group 5 has three Lawson cypress trees situated adjacent to the garage at close proximity to it and each other, the three trees are in a straight line. Their removal

has been recommended given their proximity to a permanent structure.
(Photograph 5)

- 3.10 There are a number of suppressed Lawson cypress throughout group 5 that have not managed to clear the canopy layer and are struggling to develop. Their removal could be considered to allow better light penetration through the group and make way for replacement planting and an increase in species diversity. This has not been made as a clear recommendation at this time, merely a point for consideration.
- 3.11 G6 is a small group of Yew that has been pruned to create a hedge, arch and screen against the house. Two of the trees are in close proximity to the house with a visible surface root growing directly under the house. One tree in particular makes up the majority of the effective screening and as such its loss would impact greatly on the aesthetic value of this feature however, its removal has been recommended to prevent the likelihood of damage to the property. (Photographs 3 & 4)
- 3.12 G7 and G8, Larch species, both have hanging branches present. Their removal is not essential and has not been made as a direct recommendation at this time. The hanging branch in G7 is large and can be reached by hand from the ground however, is well hung up and cannot be dislodged by hand. The hanging branch in G8 is much smaller and cannot be reached from the ground. It is unlikely to cause significant issue if retained.
- 3.13 Deadwood in trees provides valuable habitat for a variety of insects and its presence at varying heights throughout a tree feature is beneficial. As such retaining the hanging branches does have some potential benefit if preferred.
- 3.14 Ivy control has been maintained throughout the site and recommendations to continue this practice has been made for both individual trees and tree groups.

4.0 Recommendations

- 4.1 Tree work recommendations for individual trees and tree groups are discussed in section 3 of this document and a full schedule can be found in Appendices 1 & 2.
- 4.2 The recommendations made include aerial inspection. Aerial inspections must be carried out by a suitably qualified and experienced arborist competent in identifying defects. Additionally, any aerial inspection must be documented in order to provide the client with a written record of the inspection and its findings.
- 4.3 Trees need to be inspected regularly and as such recommendations for re-survey are made here. Given their condition and location it is recommended that T1 – T19 are inspected in two years from the date of this report.
- 4.4 It is further recommended that a full re-inspection of all remaining trees included in this survey, and an update of this inspection record, is undertaken every three years from the date of this report. All re-resurveys should be undertaken by a suitably qualified and experienced arborist.
- 4.5 If any significant changes to the trees appearance are noted in the meantime the advice of an arboricultural consultant should be sought. This includes any significant changes to the immediate and adjacent environment the trees are situated in such as ground disturbance.
- 4.6 All tree works recommended in this document should be carried out by a suitably qualified and insured arboricultural contractor and in compliance with the relevant British Standard BS3998: 2010 Tree Work Recommendations.

Appendices
Appendix 1 - Tree Schedule

Survey Schedule Key

Tree ID	Numerical value assigned to the tree or group
Botanical & Common Name	Botanical and common name recorded
Height	Height estimated to the top of the central canopy in metres
DBH	Depth of main stem measured at 1.5m in centimetres
Age Class	One of five categories: Y - Young, under 10 years of age, SM - Semi mature, well established but yet to reach full potential, M - Mature, more or less full height and large girth, increasing only slowly. OM - Over mature, beyond two thirds of the life expectancy of their species. No significant extension growth. Crown starting to break up and decrease in size. V - Veteran, Tree that shows features of biological, cultural or aesthetic value that are characteristic of an individual surviving beyond the typical age range for the species.
Comments	Significant comments relating to condition, form or environment
Management Prescriptions	Works recommendations

Tree ID	Botanical Name	Common Name	Height (m)	DBH (cm)	Age Class	Comments	Management Prescriptions
1	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	10	45	SM	Stand of 3 trees, growing 40cm from adjacent tree.	No works required.
2	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	10	30	SM	Stand of 3 trees, growing 40cm from adjacent tree.	No works required.
3	<i>Pseudotsuga menziesii</i>	Douglas fir	11	46	SM	Stand of 3 trees, growing 30cm from adjacent tree. Deadwood stubs.	No works required.
4	<i>Pseudotsuga menziesii</i>	Douglas fir	16	25	SM	Leader failure, hazard beam and hanging branch in top of crown, origin of hanging branch unclear, may be from T3. Slight asymmetrical form due to adjacent trees.	Remove hanging branch and check for origin.
5	<i>Pseudotsuga menziesii</i>	Douglas fir	14	39	SM	No significant visible defects.	No works required.
6	<i>Pseudotsuga menziesii</i>	Douglas fir	14	47	SM	Asymmetrical form due to adjacent trees.	No works required.
7	<i>Pseudotsuga menziesii</i>	Douglas fir	14	43	SM	No significant visible defects.	No works required.
8	<i>Pseudotsuga menziesii</i>	Douglas fir	14	39	SM	Pruning stubs on north side of main stem.	No works required.
9	<i>Pseudotsuga menziesii</i>	Douglas fir	16	42	SM	Suppressed form due to adjacent trees.	No works required.

Tree ID	Botanical Name	Common Name	Height (m)	DBH (cm)	Age Class	Comments	Management Prescriptions
10	<i>Pseudotsuga menziesii</i>	Douglas fir	14	38	SM	Restricted assessment of upper canopy due to adjacent trees and dense canopy.	No works required.
11	<i>Pseudotsuga menziesii</i>	Douglas fir	16	72	SM	Ivy growth on main stem. Broadleaf tree growing out of main stem. Stem epicormics. Restricted assessment due to dense canopy and epicormic growth.	Aerial inspection. Maintain control of ivy keeping main stem clear.
12	<i>Pseudotsuga menziesii</i>	Douglas fir	15	40	SM	No significant visible defects.	No works required.
13	<i>Pseudotsuga menziesii</i>	Douglas fir	22	71	SM	Pronounced buttress flare. Surface roots. Ivy growth on main stem. Asymmetrical form.	Maintain control of ivy keeping main stem clear.
14	<i>Pseudotsuga menziesii</i>	Douglas fir	12	38	SM	Ivy growth on main stem. Aucuba species growing at base of tree.	Maintain control of ivy keeping main stem clear.
15	<i>Pseudotsuga menziesii</i>	Douglas fir	10	22	SM	Ivy growth on main stem. Aucuba species growing at base of tree.	Maintain control of ivy keeping main stem clear.
16	<i>Pseudotsuga menziesii</i>	Douglas fir	10	27	SM	Ivy growth on main stem.	Maintain control of ivy keeping main stem clear.
17	<i>Pseudotsuga menziesii</i>	Douglas fir	9	22	SM	Crown reduced in height to 8m. Ivy growth on main stem.	Maintain control of ivy keeping main stem clear.
18	<i>Pseudotsuga menziesii</i>	Douglas fir	20	72	SM	Ivy growth on main stem. Shed growing against buttress. Habitat box on main stem. Crown epicormics. Minor deadwood over shed.	Maintain control of ivy keeping main stem clear.
19	<i>Pseudotsuga menziesii</i>	Douglas fir	21	49	SM	Shed at 50cm from stem base. Minor deadwood. Ivy growth on main stem.	Maintain control of ivy keeping main stem clear.
20	<i>Acer spp.</i>	Maple species	2	17	SM	Pruning wound stub at 0.5m.	No works required.
21	<i>Ilex aquifolium var.</i>	Variegated Holly variety	4	17	SM	No significant visible defects.	No works required.
22	<i>Laburnum anagyroides</i>	Laburnum	5	ave 12	M	Multi stemmed at base. Small splits in main stem with associated decay.	No works required.
23	<i>Larix spp.</i>	Larch species	11	58	SM	Surface roots. Ivy growth on main stem. One minor deadwood branch. Appears to have been subject to a reduction in height historically. Slight asymmetrical form to crown.	No works required.
24	<i>Taxus baccata</i>	Yew	4	30	SM	Shaped specimen.	No works required.

Tree ID	Botanical Name	Common Name	Height (m)	DBH (cm)	Age Class	Comments	Management Prescriptions
25	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	9	28	SM	Clear stem to 2m.	No works required.
26	<i>Pinus sylvestris</i>	Scot's pine	10	38	SM	One sided crown, previous branch removal on one side. Slight asymmetrical form to crown.	No works required.
27	<i>Pyrus salicifolia</i> 'Pendula'	Weeping Willow-leaved Pear	2	2	Y	Small, weeping newly planted ornamental.	No works required.
28	<i>Pyrus communis</i>	Pear	3	4	Y	Small fruit tree.	No works required.
29	<i>Eucalyptus spp.</i>	Eucalyptus species.	1.5	2	Y	Newly planted.	No works required.
30	<i>Sorbus aucuparia</i>	Rowan	3	3	Y	Epicormics at stem base.	Remove epicormics to source.
31	<i>Corylus avellana</i>	Hazel	4	ave 4	SM	Coppice. Yew growing at base.	No works required.
32	<i>Amelanchier lamarckii</i>	Snowy mespil	5	ave 10	M	Multi stemmed at base. Old, mature stem with advanced decay.	No works required.
33	<i>Chamaecyparis lawsoniana</i> var.	Lawson cypress variety	7	39	SM	Surface roots. Slight sweep to main stem with corrective growth, response to adjacent tree. Co-dominant at 3m with tight union. Ivy growth on main stem. Minor deadwood.	Maintain control of ivy keeping main stem clear.
34	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	14	39	SM	Splits in main stem north side, appear superficial. Multi stemmed at 7m with tight union as expected for species.	Monitor cracks during next inspection.
35	<i>Taxus baccata</i>	Yew	7	46	SM	Stem and crown epicormics restricting assessment. Pruning wounds.	No works required.
36	<i>Prunus spp.</i>	Cherry species	4	27	M	Historic removal of two smaller stems retaining stubs. Large wound in remaining stem 20cm x 30xm with some decay evident. Significant crown reduction resulting in stubs with young re-growth.	No works required.

Appendices

Appendix 2 - Group Schedule

Survey Schedule Key

Tree ID	Numerical value assigned to the tree or group
Botanical & Common Name	Botanical and common name recorded
Height	Height estimated to the top of the central canopy in metres
DBH	Depth of main stem measured at 1.5m in centimetres
Age Class	One of five categories: Y - Young, under 10 years of age, SM - Semi mature, well established but yet to reach full potential, M - Mature, more or less full height and large girth, increasing only slowly. OM - Over mature, beyond two thirds of the life expectancy of their species. No significant extension growth. Crown starting to break up and decrease in size. V - Veteran, Tree that shows features of biological, cultural or aesthetic value that are characteristic of an individual surviving beyond the typical age range for the species.
Comments	Significant comments relating to condition, form or environment
Management Prescriptions	Works recommendations

Group ID	Botanical Name	Common Name	Height (m)	DBH (cm)	Age Class	Comments	Management Prescriptions
1	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	6	10	SM	No significant visible defects. Redundant utility pole in group. 11 trees in group.	No works required.
2	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	10	24	SM	Low, sweeping branches. Log pile to rear. 6 trees in group.	No works required.
3	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	8	12	SM	No significant visible defects. Restricted assessment due to limited access. 4 trees in group.	No works required.
4	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	3	8	SM	Maintained hedge.	No works required.
5	<i>Chamaecyparis lawsoniana</i> , <i>Taxus baccata</i>	Lawson cypress, Yew	11	20	SM	Linear woodland type group. Suppressed cypress. 3 Cypress in close proximity to garage, closest at 10cm. Made up soil at front of group over flower and shrub bed. Ivy growth on main stems.	Remove 3 Cypress trees adjacent to garage. Maintain ivy control. Consider removal of suppressed cypress to allow for alternative replacement planting.
6	<i>Taxus baccata</i>	Yew	4	10	SM	Maintained hedge creating arch and screening. 2 trees at 30cm from house wall with one surface root beneath house.	Remove two trees in close proximity to structure to avoid the potential for damage.
7	<i>Larix spp.</i>	Larch species	16	ave 60	SM	Stand of 3 trees, 40cm apart. Ivy growth on main stems. Pruning wound stubs. Yew growing adjacent to 1 tree. Large hanging branch hung up in lower canopy.	Remove hanging branch if desired. Maintain ivy control.
8	<i>Larix spp.</i>	Larch species	16	ave 50	SM	Stand of 5 trees. Surface roots. Ivy growth on main stems. Small hanging branch. Compost area established to rear.	Remove hanging branch if desired. Maintain ivy control.

Group ID	Botanical Name	Common Name	Height (m)	DBH (cm)	Age Class	Comments	Management Prescriptions
9	<i>Chamaecyparis lawsoniana</i>	Lawson cypress	5	7	Y	6 trees planted for screening. No significant defects.	No works required.
10	<i>Betula utilis</i> var. <i>jacquemontii</i> , <i>Sorbus aucuparia</i>	Himalayan birch, Rowan	4	5	Y	3 Birch and 1 Rowan in a formal group of newly planted tree.	No works required.
11	<i>Pseudotsuga menziesii</i> , <i>Chamaecyparis lawsoniana</i> , <i>Taxus baccata</i> , <i>Thuja plicata</i>	Douglas fir, Lawson cypress, Yew, Western red cedar	14	40	SM	Wooded group. Holly and Yew understory present. 2 small Elm in group. Ivy growth on main stems. Wire occluded in one main stem. Some suppressed cypress.	Maintain ivy control on roadside trees.

Appendix 3 - Photographs



P1 - Driveway Douglas fir



P2 - T18 & T19



P3 - Group 6 Yew



P4 - Group 6 Surface Root



P5 - Group 5 Cypress for Removal



P6 - T35 Yew with Epicormic Growth



Key

-  Trees (T)
-  Tree Groups (G)



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Scale: 1:300 @ A3 Scale



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Whitewalls, Station Road

TREE SURVEY

Drawing No	Whitewalls_MAP1_Rev2.0
Date	19 February 2018

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