

Category & definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention				
Category U Trees in such a condition that they cannot realistically be retained as living trees in the context of current land use for >10 yrs	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees - Trees that are dead or showing signs of significant, immediate and irreversible decline - Trees infected with significant pathogens affecting health or safety, or very low quality trees suppressing trees of better quality NOTE: these trees can have existing or potential conservation value making retention desirable			DARK RED
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values inc conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of >40 yrs	Particularly good examples of their species, esp if rare or unusual. Those that are essential components of groups or formal or semi-formal arboricultural features	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of >20 yrs	Trees that might be included in category A but are downgraded because of impaired condition such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit category A designation.	Trees present in numbers, usually growing as groups or woodlands such that they attract a higher collective rating that they might as individuals. Trees occurring as collectives but situated so as to make little visual contribution to the area.	Trees with material conservation or other cultural value	MID BLUE
Category C Trees of low quality with an estimated remaining life expectancy of >10 years, or young trees with a stem diameter <150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary landscape benefits.	Trees with no material conservation or other cultural value.	GREY

Table 2 - Tree classification, adapted from table 1 of BS 5837:2012

3.0 Arboricultural Impact Assessment

3.1 General Statement

- 3.1.1 In total 8 individual trees and 5 tree groups were surveyed. All trees have been identified on the accompanying Tree Constraints Plan.
- 3.1.2 The individual trees consist of formal planting or established self-set specimens both on and off site. The tree groups consist of screening hedges, two groups of multi stemmed trees and a small growth of stump re-growth.
- 3.1.3 A full schedule for individual trees and tree groups can be found in Appendix 1 however, relevant details and significant factors are discussed below.

3.2 Species and Age Distribution

- 3.2.1 The dominant tree species on site is Sycamore (*Acer pseudoplatanus*) although several Hazel (*Corylus avellana*) were also noted.
- 3.2.2 Lawson cypress (*Chamaecyparis lawsoniana*) and Ash (*Fraxinus excelsior*) are also present on site as hedges and one individual respectively.
- 3.2.3 The majority of trees have been classified as semi mature and as such are capable of making a significant contribution to the landscape for many years to come. It should be noted that an age category relates to a period of years and as such even mature specimens can make a lasting contribution that may span decades, dependant on the individual species.

3.3 Tree Descriptions

- 3.3.1 T1, and T3 – T6 inclusive, are coppice Hazel specimens, predominantly situated in the adjacent public open space. They are also for the most well established and offer amenity and ecological value.
- 3.3.2 T2 is an Ash tree situated towards the western extents of the site.
- 3.3.3 T7 and T8 are two on-site Sycamore trees, thought to be established self-set specimens.

- 3.3.4 G1 and G2 are maintained cypress hedges established against the southern site boundary with the adjacent residential plot.
- 3.3.5 G3 and G4 are two groups of multi stemmed Sycamore situated in the adjacent public open space.
- 3.3.6 G5 falls outside of the remit for inclusion in this type of survey however has been noted for information purposes. It consists of stump re-growth from previously removed Sycamore trees.
- 3.3.7 At the northern site boundary between Groups 3 and 4 and on-site is a large Sycamore stump, approximately 2m in height. It does have a few live epicormic shoots on it however has not been included in the survey data. The stump is hollow and fire damaged and will require removal prior to development. See Appendix 4 Photographs.

3.4 Structural Condition

- 3.4.1 Structural condition relates to the form of the trees, in particular specimens that have developed as multi stemmed from the base or may have developed poor branch structure that renders them susceptible to failure in the future.
- 3.4.2 Many of the individual trees and tree groups have been subject to coppice management (T1, T3 – T6, G3 and G4). Coppicing is the removal of all growth to ground level to stimulate multi stemmed re-growth. The re-growth is then typically removed on a cyclical basis.
- 3.4.3 It must be noted that this management practice must be maintained to prevent re-growth from exceeding its optimum size and as such becoming susceptible to failure although the form of the trees in G3 and G4 promotes their retention as they have for the most wide and open stem unions and limited stem numbers.
- 3.4.4 T2 Ash has an acute branch union at approximately 1.5m however no remedial action is deemed necessary.

3.5 Physiological Condition

- 3.5.1 Physiological condition relates to the health of the trees surveyed.

3.5.2 Some fire damage was noted on the western side of individual stems of trees within G4, likely from the fire noted in the adjacent tree stump. Fire damage often develops into dysfunctional tissue and can lead to cavities over time however this will be a symptom monitored during inspections made by Wrexham County Borough Council during their routine surveys as is not deemed significant enough to warrant remedial action at this time.

3.6 Development Proposal Summary

3.6.1 The proposal is to develop a residential dwelling, serviced by an access driveway leading to three parking bays, with gardens to the rear.

3.6.2 Vehicular access is off Station Road.

3.7 Tree Categorisation & Constraints

3.7.1 The tree constraints plan that accompanies this report shows the above ground constraints (branch spread) and the below ground constraints, i.e. the anticipated extent of tree roots based on a calculation using the stem diameter and consideration of any site conditions which may affect root growth.

3.7.2 Shading from trees has not been indicated as it is not deemed significant to the site development given the site orientation and location of trees proposed for retention.

3.7.3 Root protection areas are usually shown as a circle centred on the base of the stem unless site conditions such as nearby structures indicate that the shape of the rooting area deviates from this format. No root protection areas have been modified for this particular site.

3.7.4 The trees surveyed for this report have been categorised as follows:

BS Category	Tree Reference	Number of Features
A (1,2,3)	n/a	0
B (1,2,3)	T2, T7, T8, G1, G2, G3, G4	7
C (1,2,3)	T1, T3, T4, T5, T6	5
U	G5 (off site feature)	1

3.8 Below ground constraints

- 3.8.1 Although every effort has been made to retain onsite trees and avoid conflict with root systems there are some below ground constraints that are discussed here.
- 3.8.2 There is a minor incursion into the RPA's for G2 to the north, and G3 and G4 to the south however, this is deemed negligible and should not prevent the proposed development.
- 3.8.3 In addition to the existing incursion a maximum 1m has been allowed into the RPA for development operations and the total incursion following this is as follows:
- G2 is a 3% incursion
 - G3 & G4 1.5% incursion
- 3.8.4 As such it is proposed that the Tree Protection Fencing is established at a lesser distance where incursions exist to allow development to take place adjacent to the RPA's for retained trees by 1m. The full RPA extent has been quoted in the tree schedules however will be amended within the Arboricultural Method Statement produced on receipt on planning consent.
- 3.8.5 There is also a minor incursion into the RPA for T7 and T8 however, given the species, location, orientation and potential for growth of these two on-site trees their removal has been recommended. This is discussed in more detail in section 3.9.
- 3.8.6 It must be noted that should any other works be proposed within the root protection areas for retained trees at a future date they will need to be approved by the Local Planning Authority and completed under supervision. Any such works must not involve ground disturbance. As such no soil rotovating for the purpose of soft landscaping or trenching to facilitate development of boundary fencing or walls will be possible.

3.9 Above ground constraints

- 3.9.1 T7 and T8, both semi mature Sycamore trees, are situated north west of the proposed development. Given their potential for growth as large, spreading species, and orientation within a west facing garden, it is expected that there would be future

conflicts between the development and trees. It is also anticipated that the trees would constitute a nuisance.

- 3.9.2 As such it is recommended that these trees are removed prior to development, and that their loss is mitigated against with replacement and enhancement planting, reflecting the loss of two established trees.
- 3.9.3 It is suggested that any such agreed mitigation planting is offered to and established on the adjacent council land to; prevent planting trees that would be a future problem for any potential resident, promote their successful retention and development, and aid succession planting.
- 3.9.4 Exact details of necessary mitigation and enhancement planting will be provided in the Arboricultural Method Statement.

3.10 *Trees to be retained/ removed*

- 3.10.1 Of the 8 individual trees and 5 tree groups surveyed, 2 individual trees and 1 tree group are proposed for removal. T7 and T8, both Sycamore trees, have been recommended for removal given their potential future conflict and likelihood to present a nuisance. G5 has been proposed for removal to address stump re-growth prior to it maturing and becoming problematic and potentially hazardous.
- 3.10.2 All trees to be removed or retained are listed below:

BS Category	Trees to be Removed	Trees to be Retained
A (1,2,3)	n/a	n/a
B (1,2,3)	T7, T8	T2, G1, G2, G3, G4
C (1,2,3)	n/a	T1, T3, T4, T5, T6
U	G5 (off site feature)	G5 (off site feature)

*Stump onsite between G3 and G4 also to be removed.

Appendix 1.1 - Tree Survey Data

Table 1 - Tree Survey Data

Date: 21st November 2019

Site: Station Road, Rhosyllen, Wrexham LL14 4

Key For Tree Survey Data

Surveyor: N Brewin

Tree ID	Numerical value assigned to the tree or tree group
Common & Botanical Name	Common and botanical name recorded
Height (m)	Height to the top of the central canopy
Stem Dia. (mm)	Depth of main stem measured at 1.5m
Crown Spread (m)	Measure of the spread of the canopy across the four cardinal compass points
Height & Orientation of First Significant Branch	Height and orientation on the main stem of the first significant branch
Avg. Canopy Height (m)	The average height of the canopy of the tree
Life Stage	Classified as young, semi mature, mature, over mature or veteran (See Table 1 section 2.0.4 for further classification)
General Observations	Significant structural and physiological defects noted
Preliminary Recommendations	Works recommendations to remedy or further investigate significant defects, or to facilitate development or site access.
Estimated Remaining Contribution (Years)	Taken from guidelines provided within BS 5837 (2012) Trees in Relation to Design, Demolition and Construction
BS5837: 2012 Category	Taken from guidelines provided within BS 5837 (2012) Trees in Relation to Design, Demolition and Construction
RPA Radius (m)	Root protection area - radius of RPA
RPA m ²	Root protection area

Tree ID	Common Name	Botanical Name	Height (m)	Calc. / Actual Stem Dia. (mm)	Spread (m)				Height (m) & Orientation of First Significant Branch	Avg. Canopy Height (m)	Life Stage	General Observations
					N	E	S	W				
1	Hazel	<i>Corylus avellana</i>	3	130	1	1	1	1	0	0	SM	Coppice specimen
2	Ash	<i>Fraxinus excelsior</i>	8	250	5	2	2	3	E 1	1	SM	Acute branch union
3	Hazel	<i>Corylus avellana</i>	4	130	1	1	1	1	0	0	SM	Off site coppice specimen
4	Hazel	<i>Corylus avellana</i>	5	320	2	3	2	3	0	0	M	Lapsed coppice specimen wildlife habitat.
5	Hazel	<i>Corylus avellana</i>	5	320	2	3	2	3	0	0	M	Lapsed coppice specimen wildlife habitat.
6	Hazel	<i>Corylus avellana</i>	5	320	2	3	2	3	0	0	M	Lapsed coppice specimen wildlife habitat.
7	Sycamore	<i>Acer pseudoplatanus</i>	8	380	2	2	2	2	N 3	2	SM	Historically twin stem. Stem base epicormic assessment.
8	Sycamore	<i>Acer pseudoplatanus</i>	8	250	1	1	1	1	S 2	2	SM	Ivy growth restricting

Appendix 1.2 - Group Survey Data

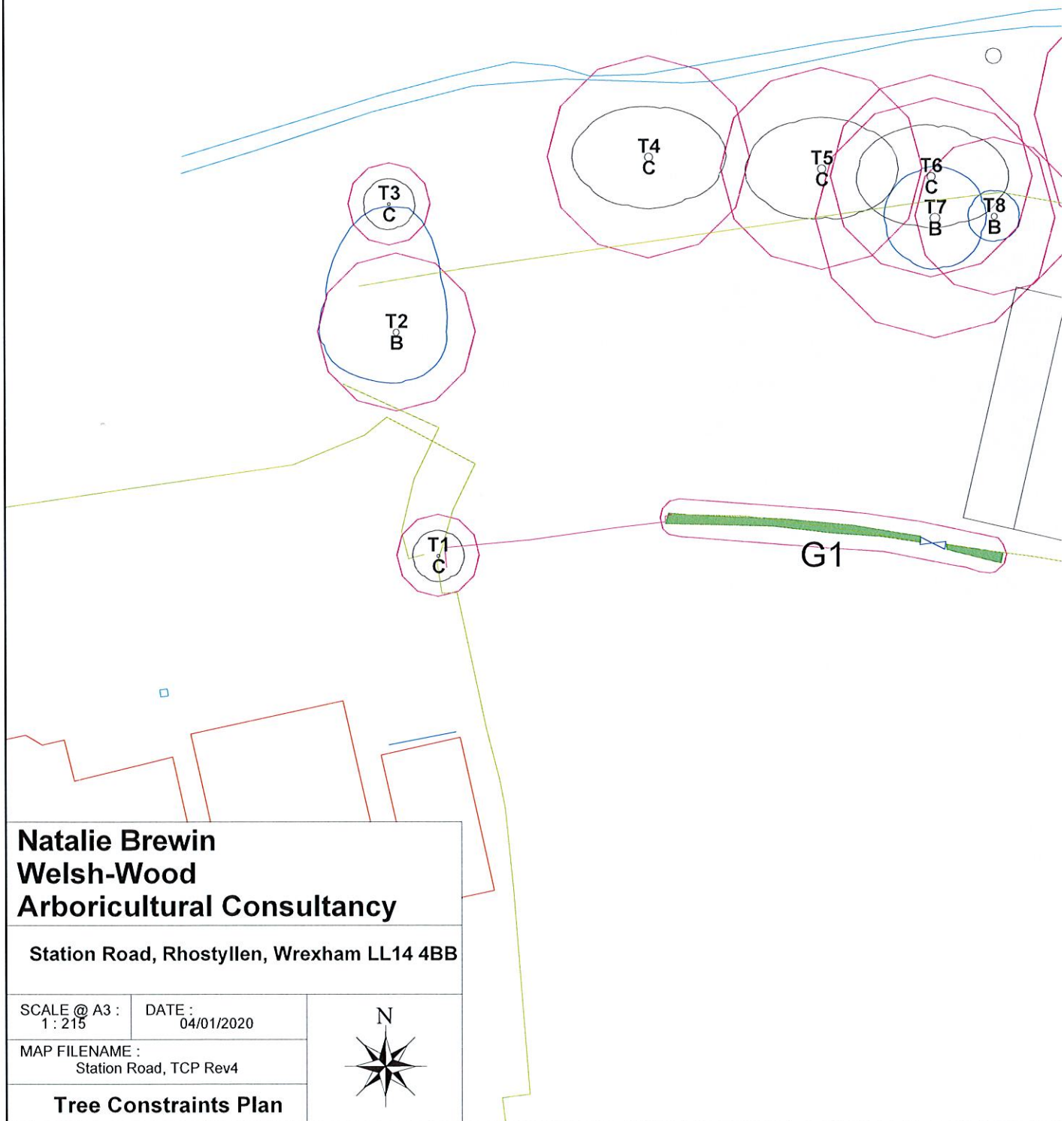
Date: 21st November 2019

Site: Station Road, Rhosyllten, Wrexham LL14 4BB

Surveyor: N Brewin

Key For Tree Survey Data	
Tree ID	Numerical value assigned to the tree or tree group
Description & Dominant Species	Brief description of the group with dominant species
Height (m)	Average height to the top of the central canopy
Stem Dia. (mm)	Average depth of main stem measured at 1.5m
Crown Spread (m)	Average measure of the spread of the canopy across the four cardinal compass points
Life Stage	Classified as young, semi mature, mature, over mature or veteran (See appendix 1 for further classification)
General Observations	Significant structural and physiological defects noted
Preliminary Recommendations	Works recommendations to remedy or further investigate significant defects, or to facilitate development or site access.
Estimated Remaining Contribution (Years)	Taken from guidelines provided within BS 5837 (2012)
BS5837: 2012 Category	Trees in Relation to Design, Demolition and Construction
RPA Radius (m)	Taken from guidelines provided within BS 5837 (2012)
RPA m ²	Trees in Relation to Design, Demolition and Construction
	Root protection area - radius of RPA
	Root protection area

Group ID	Description	Dominant Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Spread (m)				Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2005 Category	RPA Radius (m)	RPA m ²
					N	E	S	W							
1	Maintained cypress hedge at site boundary.	Lawson Cypress, <i>Chamaecyparis lawsoniana</i>	2	60	1	1	1	1	SM	Maintained boundary hedge.	No works required.	20+	B2	0.8	2
2	Maintained cypress hedge at site boundary.	Lawson Cypress, <i>Chamaecyparis lawsoniana</i>	2	150	1	1	1	1	SM	Maintained boundary hedge.	No works required.	20+	B2	1.8	10
3	Small group of multi stemmed Sycamore, appears to be 4 separate trees.	Sycamore, <i>Acer pseudoplatanus</i>	8	430	3	3	2	3	SM	Small group of multi stemmed sycamore, few tight unions however not excessive. Ivy growth restricting assessment of some. Individual thorn and hazel within group. Linear feature in adjacent open space forming corridor to adjacent woodland.	No works required.	20+	B2	5.2	84
4	Small group of multi stemmed Sycamore, appears to be 5 separate trees.	Sycamore, <i>Acer pseudoplatanus</i>	8	430	3	3	3	3	SM	Small group of multi stemmed sycamore, few tight unions however not excessive. Ivy growth restricting assessment of some. Some historic fire damage to south from fire within remnant large sycamore stump. Individual thorn and hazel within group. Linear feature in adjacent open space forming corridor to adjacent woodland.	No works required.	20+	B2	5.2	84
5	Stump re-growth in the form of maturing epicormic shoots.	Sycamore, <i>Acer pseudoplatanus</i>	2	10	1	1	1	1	SM	Stump re-growth from previously removed sycamore trees.	Remove to ground level and treat stumps.	<10	U	0.0	0



Appendix 3

Bibliography

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Appendix 4 - Photographs



P1 – Site Interior



P2 – Northern Boundary from Public Open Space (T2-T8 & G3-G5)



P3 – Stump Between G3 & G4



P5 – T7 & T8 Sycamore



P6 – G1 and G2



P7 – G5 Stump Re-growth



P4 – T2 and Northern Boundary Interior