



Tree Assessment Report, Mr J. Strand, St Mary's Church

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1 Introduction

- 1.1.1 TR33 has been instructed by Mr J. Strand of St. Mary's Church to complete a tree hazard survey and to subsequently provide a report of the findings for land at St. Mary's Church, Parc Terrace, Merthyr Tydfil, CF47 8RF (hereafter referred to as 'the Site').
- 1.1.2 The purpose of this report is to record and identify trees which by virtue of their condition and location require arboriculture works to negate any threat that they pose to the safe use of the surrounding environment.
- 1.1.3 The scope and level of detail included within this report is in line with industry best practice, it complies with the principles set out by the National Tree Safety Group (NTSG)¹ and includes for reference:
- 1.1.4 Tree survey schedule detailing the attributes of recorded trees and recommended remedial works;
 - Site photographs (where required);
 - Recommendations for further survey (where required); and
 - Tree location plan.

2 Validity Period

- 2.1.1 Trees are dynamic organisms which are influenced by a variety of environmental variables and whose health and condition can rapidly change. Because of this any recommendations made within this report are valid for a period of 12 months from the date of issue.
- 2.1.2 This report may be rendered invalid within that time if material changes such as earth works, vandalism or a significant weather event occur that could negatively impact the condition of trees.
- 2.1.3 Further exclusions and limitations applicable to this report are at appendix D.

3 Site Description

- 3.1.1 The Site is centred at Grid Reference SO 04858 06577 and consists of a church and its grounds which contain gardens with shrubs and trees, dominated by six large Pine trees located at the front of the site. The site is surrounded by roads in all but one area, in this area the boundary is shared with a house.

4 Methodology

- 4.1.1 All qualifying trees within the Site (see tree location plan at appendix A) were made the subject of a walk over assessment for obvious signs of defect. Where such a defect was noted, ground based visual tree assessment² (VTA) was used to investigate further. VTA is a non-intrusive method of examining the physiological and structural condition of trees. This systematic method is used to understand the body language of the tree and obvious characteristics that would appear to be abnormal compared to the typical biomechanical behaviour of the tree. This allows an assessment to be made of the significance of the defect

¹ <https://ntsgroup.org.uk/wp-content/uploads/2016/06/FCMS024.pdf>

² Mattheck and Breloer 1994

in relation to the surrounding environment. Qualifying trees are considered to be all trees above 75mm in stem diameter when measured at a height of 1.5m above ground level.

4.1.2 In order to provide an assessment of the hazard posed by a significant defect there are three criteria to consider:

- What is the target? What will the tree hit if it were to fail in whole or partially as a result of the defect;
- What would be the magnitude of that failure? Would the failure cause a branch to land in a field or whole tree to strike a house;
- How likely is that to happen? Is the target always present in the way a house would be or is it a movable target such as a passing cyclist?

4.1.3 With the above points in mind, this report uses a series of ratings to quantify the target, magnitude and likelihood of failure. Definitions of these ratings can be found at appendix C.

5 Commentary

5.1.1 The following commentary is intended to provide a general review of the trees condition and common management requirements. Recommended works for each recorded tree are included within appendix B.

5.1.2 There is an area where brash and garden waste has been stored for compost which made inspecting the base of the Cotoneaster on the west side of the site not possible but its physiological condition appeared to be good.

5.1.3 The large Lime tree at the rear of the site has been historically "Topped". This is when the upper part of the crown is removed. This type of tree surgery is not regarded as good practice. The regrowth formed since the event is likely to be growing from decaying stems and as they continue to become larger are likely to fail at the point of union. As this system of management has been used and the damage has been done, the best way to retain the tree and reduce the risk of failure of the regrowth is to reduce the regrowth back to the previous cuts and to maintain the new regrowth in cyclical management, while also reducing the lateral limbs in to a point in fitting with the rest of the crown.

6 Appendix A: Definitions

Assessment Type: This field records the level of detail considered in the assessment as follows; Passive, passing by noting items that the untrained amateur would identify as a potential problem; Basic, a walkover assessment by trained professional; Detailed, a closer professional assessment of the tree using non-intrusive methods; and Advanced, a potentially aerial assessment but may also include intrusive methods such as using a micro-drill to measure resistance through the tree or sonic tomograph to measure the velocity of sound through the tree, both which change in areas of cavities, dysfunction and decay.

Feature Type: This is the form in which a tree or trees are recorded. The intention of this field is to illustrate the feature that the tree or trees form in the landscape, this can be as individuals, a small group, a linear feature, an orchard or stand or an area of woodland. These are recorded as a point, line or polygon and are shown in this form in the Tree Location Plan in Appendix E.

Tree / Tag: Simply the unique reference number of the recorded tree. Typically, the tag number attached to the tree will be recorded.

Species: Common or botanical name of the tree species.

Height: Height of tree recorded to aid identification on site and to inform zone of influence should the tree fail in part or whole, recorded as Small <5m, Medium 5-15m, Large 15-20m, Very Large >20m, Mixed.

Diameter: Diameter of tree stem required to aid identification on site but also inform potential outcome should the tree fail, recorded as Small <200mm, Medium 200-600mm, Large 600 -1200mm, Very large >1200mm, Mixed.

Age: Approximate age of tree to aid identification on site but also to inform potential remaining useful life expectancy and future size. Recorded as Young, Early Mature, Semi Mature, Mature, Over Mature and Mixed.

Stems / Trees: The number of stems the individual tree has or the number of or approximate number of trees present in a group.

Physiological Condition: Assessment of the trees performance of natural life processes, in simple terms a health assessment to be recorded as, Good-no obvious sign of significant defect, Fair-minor to moderate defects noted, Poor - Moderate to Significant defects noted Dead -no longer living and Mixed - used in group features where the conditions vary amongst the population.

Structural Condition: Assessment of the trees performance in retaining its structure and any faults in that which could lead to its failure. To be recorded as Good - no obvious sign of significant defect, Fair-minor to moderate defects noted, Poor - Moderate to Significant defects noted and Mixed - used in group features where the conditions vary amongst the population.

Target Rating: to be used in support of the zone or as a stand-alone criteria. The intention is to identify the nature of what would be impacted if the tree were to fail in part or whole. To be recorded as. 1: Low human activity / easily moved manmade features, 2: Moderate Human activity / minor immovable structures, 3: Regular human activity / unoccupied structures, 4: Significant human activity / occupied structures, 5: Permeant human occupation / key infrastructure.

Hazard Rating: an assessment of the magnitude of harm or damage caused should the tree fail in part or whole. To be recorded as, 1: Unlikely to cause harm or damage but noteworthy, 2: Minor potential to cause harm or damage 3: Moderate: Likely to cause harm or damage, 4: Significant, likely to cause harm or damage to multiple targets, 5: Urgent, will cause significant harm or damage to multiple targets - Urgent issue.

Part size: A record of the size of the item under consideration to be recorded as: Deadwood, Minor Part, Major Part, Whole Tree, Other Feature or Statutory Works.

Priority: This is provided as guidance only. It is the client's decision as to when remedial works are to be undertaken. The priority values are: 1 Noteworthy, 2. <4 Years, 3. <2 Years, 4. <1 Year, 5. <6 Months and Emergency.

NB Emergency works will be noted as such and reported immediately. NB2, Priorities are guidance only, if the assessor feels a different priority is required based on their knowledge and experience, this can be stated in the comments section.

Comments: Surveyors are advised to record pertinent comments to support their assessment and to inform the remedial works being undertaken.

Recommendations: Recommended remedial works or other actions required to negate or reduce the threat posed to the safe use of the area. The recommendations may also include a detailed or advanced assessment.

Re-Assessment date: Advised time for the re-assessment of the recorded tree to be informed by the above data fields. Recorded as: 4 Years, 2 Years, 1 Year, 6 Months and None.

7 Appendix B: Exclusions and Limitations

The following exclusions and Limitations apply to this report and the site assessment that Informed it.

- 7.1.1 Although all trees were made the subject of a walk over, only those with obvious sign of significant defect that require remedial work were recorded.
- 7.1.2 Unless otherwise states, no checks have been made for any statutory protections afforded to the trees recorded in this report.
- 7.1.3 Where access was not possible due to physical barriers or dense bramble for example, the tree was assessed from the nearest position of safety only.
- 7.1.4 Unless otherwise stated, no aerial or intrusive assessments were carried out. No soil samples or any other ground breaking was undertaken at the time of the assessment.
- 7.1.5 Comments may have been recorded in relation to potential habitat / ecological value but this does not constitute an ecological assessment report.
- 7.1.6 Unless otherwise stated tree locations are approximate.
- 7.1.7 The presence of a fungal pathogen can only be determined during a non-intrusive visual tree assessment by the presence of its reproductive part often referred to as a fruiting body. Although tree assessment can be carried out at any time of year, it should be noted that many species of fungal pathogen do not reliably produce a fruiting body annually. In addition, not all fruiting bodies are hardy and as such are likely to deteriorate rapidly. Furthermore, fungal fruiting season is generally regarded as autumn.
- 7.1.8 As with any assessment, the surveyor can only report on the facts before them at the time of the site visit.
- 7.1.9 Trees are dynamic structures and as such are subject to change as a result of biotic and abiotic factors in their environment. It should be noted that as with any structure, a tree with no obvious sign of significant defect may fail if exposed to sufficient force.
- 7.1.10 Target rating is based on appearances at the time of assessment, of the perceived target occupancy of the area around a tree, i.e. how probable is it that a "target" will be present should some form of failure occur, considered together with an estimate of the seriousness of the possible consequences of such a failure, i.e. the vulnerability of the potential target to harm.

8 Appendix C: References

The Following references have been used in the completion of the survey and this report

- BRITISH STANDARDS INSTITUTION BS3998 (2010). Recommendations for Tree work.
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- MATTHECK, C & BRELOER, H (1998). The Body Language of Trees: A Handbook for Failure Analysis (Research for Amenity Trees 4) HMSO, London.
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- ROBERTS *et al* (2006). *Tree Roots in the Built Environment* (Research for Amenity Trees No. 8) The Stationery Office, London
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Appendix D: Assessment Schedule

Assessment Type	Tree / Tag	Species	Height	Diameter	Age	Stems	Physiological	Structural	Target	Hazard	Part size	Priority	Comments	Recommendations	Re-Assessment due
Bas	278	Holly	M	M	Sm	4	G	G	R	U	O	3	Very dense Ivy cover. Compost piled up at the base.	Sever Ivy at ground level and strip to 2m and move compost from around the base to aid future inspection	2Yr
Bas	279	Lime	L	L	M	1	G	G	R	Md	Mj	3	Historically topped. 6m of regrowth likely to be growing from decaying stems. Overhanging highway. Dense Ivy cover	Reduce back to previous points and reduce lateral limbs to fit into shape of reduced crown. Sever Ivy at ground level	2Yr
Bas	1	Pine Group	VI	L	M	6	G	G	R	Md	Dw	4	Deadwood present in all trees.	Remove all unstable deadwood over 60mm in diameter	2Yr

10 **Appendix E: Tree Location Plan**



