

BS5837:2012 Tree Survey Report

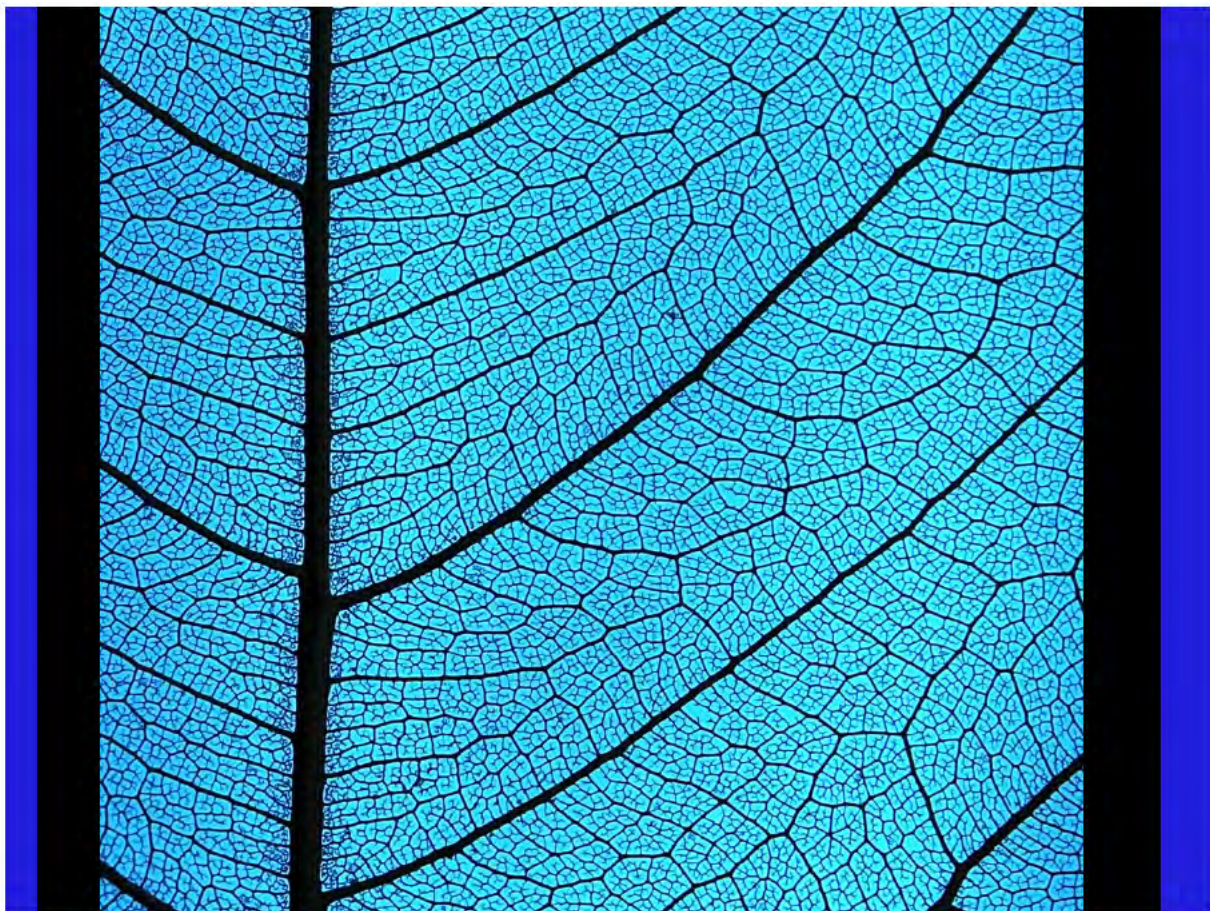
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Poynton Pool Reservoir Flood Resilience Improvement Scheme

7 October 2022



BS5837:2012 Tree Survey Report

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Executive summary

On behalf of Cheshire East Council (CEC), Jacobs UK Limited has carried out a tree survey in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction- Recommendations' in May 2022 at Poynton Pool.

The survey records all trees within the site and all those which may be affected by any development proposals within the site boundary, recording a number of parameters including species, crown spread and Root Protection Area (RPA).

The RPA of any given tree is the area of ground around that tree which should not be disturbed by excavation, compaction, changes in level or other construction/demolition operations. The extent of the RPA is calculated in accordance with BS 5837:2012, and is an important metric for understanding the impact a proposal will have on tree removal and retention and how to protect those trees retained.

The survey recorded 12 tree groups and 86 individual trees.

None of the trees are protected by CEC Tree Preservation Orders (TPO). The site is not located within a Conservation Area. The site contains no veteran trees, Ancient Woodland or registered ancient trees and none have been identified by this survey.

The information contained within this report should be used to inform the detailed design of the scheme and be the basis for an Arboricultural Impact Assessment, Arboricultural Method Statement and a Tree Protection Plan.

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1. Introduction

1.1 Purpose of Report

Jacobs UK Ltd. (Jacobs) were commissioned by Cheshire East Council (CEC) to undertake a BS5837:2012 Tree Survey Report for the Poynton Pool Reservoir Flood Resilience Improvement Scheme (hereafter known as the scheme). The Tree Survey Report has been produced with reference to 'BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations' (BSI, 2012).

1.2 The Scheme

CEC is proposing to undertake spillway improvements as part of flood mitigation works at Poynton Pool situated to the north of Poynton, Cheshire.

The development will include flood mitigation works including reprofiling of existing ground levels to provide flooding resilience to the adjacent Poynton Pond with associated hard and soft landscaping.

The site boundary (the red line) is shown in Appendix F (Tree Constraints Plan) and Figure 2.1. Note the survey area may differ from the site boundary.

1.3 Methodology and Scope

The tree survey was conducted in line with the methodology detailed within BS 5837:2012 (BSI, 2012) and involved the surveying of trees as individuals or groups of trees within an agreed study area (forming the survey area) supplied by the Jacobs design team. The information collected and methodology used is summarised in Appendix A (Tree Survey Methodology) of the Tree Survey Report.

Trees are reported as individuals or groups. Tree locations were determined on site using digital survey software and hardware which use a combination of georeferenced topographical survey (topographical drawing BRJ10627_TOPO_3D_001), aerial imagery and the devices inbuilt Global Position System (GPS). Trees plotted with the internal GPS can be assumed to have an accuracy of +/- 5 m.

Trees were categorised using BS 5837 (BSI, 2012) into four categories (A, B, C, U) and for trees in categories A-C, they also qualified under three subcategories (1, 2, 3). A summary of this classification can be seen in Appendix C.

The tree survey data is shown in Appendix E (Tree Survey Schedule) and was used to produce a Tree Constraints Plan (TCP) in Appendix F, which depicts the existing rooting area and canopy constraints posed by the trees within the Site Boundary.

1.4 Limitations and Assumptions

Limitations to the tree survey include the following key points:

- No soil survey data is included in this report. Due to the potential variances of soil type across a site it is considered to be more appropriate to obtain this information from a suitably qualified professional.
- Indicative Root Protection Areas (RPAs) have been calculated for tree groups based on the maximum stem diameter taken for each group.
- No data for individual trees within surveyed groups was recorded. An exception to this is when a tree was deemed notable within a group.
- First branch height and direction was not recorded for individual trees or groups. We do not consider this information necessary to inform design.

- Where access was restricted, tree measurement data has been estimated. This has been indicated within the Tree Survey Schedule (Appendix E) with the use of an '#' next to the tree number.
- The health and condition of trees can change rapidly and all trees, even healthy ones, are at risk from unpredictable climatic and man-made events. This report is based on the observed health and structural condition of the trees at the time of survey by suitably qualified inspectors. The health, condition and safety of trees should be checked on a basis commensurate with the level of risk and preferably on an annual basis, as recommended in Common Sense Risk Management of Trees (National Tree Safety Group, 2011). The tree survey conducted for this report is not a tree health and safety survey and should not be used as such.
- An RPA provides a notional circular buffer around a given stem based on the stem diameter taken at 1.5m. However, this is not necessarily representative of a tree root system e.g. the roots may extend beyond the RPA boundary on one side and remain inside it on the opposite. The root network extent is dependent on many factors including species, age, soil conditions, topography and exposure etc. The assessment has not taken consideration of these above and shows RPAs as an indicative circular form as per the BS5837:2012 guidance.

Ash Die Back

Ash die back (ADB) also known as Chalara or Chalara dieback of ash, is a disease of ash trees caused by a fungus called *Hymenoscyphus fraxineus*. ADB causes leaf loss, crown dieback and bark lesions in affected trees. Once a tree is infected the disease is usually fatal, either directly or indirectly by weakening the tree to the point where it succumbs more readily to attacks by other pests or pathogens, especially *Armillaria* fungi, or honey fungus.

It has caused widespread damage to ash populations in continental Europe, where experience indicates that it can kill young ash trees quite quickly, while older trees can resist it for some time, until prolonged exposure or another pest or pathogen attacking them in their weakened state, eventually causes them to succumb.

It is becoming increasingly difficult to assign ash trees a retention category using the BS5837:2012 standards. The general advice from public bodies is to retain ash trees and see how the disease develops within the local population. However, if clear signs of ADB are found on sites, it is likely that most of the ash trees on that site will succumb in a relatively short period. It would be unreasonable to consider an ash tree a significant constraint to a site, if it is to die within a short period of time.

Evidence from other parts of the country suggest that infected trees rapidly lose structural integrity and are more prone to branch shedding and total collapse. Furthermore, ash, as a species is known for its inability to retain even small deadwood, which it sheds regularly as it appears in the crown.

The Tree Council has produced a document giving guidance on how to deal with ADB to tree owners and managers. 'Ash dieback: an Action Plan Toolkit (Summer 2019)¹'. This excellent document gives guidance on assessing the danger posed by the trees infected by ADB. As suggested in the document, Jacobs have adopted the Suffolk County Council Ash Health Assessment System² below. The system categorises ash trees with the symptoms in 4 categories:

- Ash Health Class (AHC) 1 – 100 – 75% Canopy healthy (Vitality Class 0)
- Ash Health Class (AHC) 2 – 75% -50% Canopy healthy (Vitality Class 1)
- Ash Health Class (AHC) 3 – 50% - 25% Canopy healthy (Vitality Class 2)
- Ash Health Class (AHC) 4 – 25% - 0% Canopy healthy (Vitality Class 3)

Many local authorities have concluded that any trees which fall within AHC 3 and 4 require management and it seems reasonable to follow a similar system. The priority of that management depends on the severity of the tree's decline with trees progressing from AHC 2 into AHC 3 requiring work as part of a program of regular works. As the

¹ <https://treecouncil.org.uk/what-we-do/science-and-research/ash-dieback/local-authority-ash-dieback-action-plan-toolkit/>

² <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.suffolk.gov.uk/assets/planning-waste-and-environment/suffolks-countryside-and-wildlife/Chalara-Action-Kit.pdf>

trees progress (decline) towards class 4, action becomes more urgent to abate any hazard, assuming the tree is in a high risk area.

This report has taken into account the high number of infected ash trees on the site, and has assumed that none will survive longer than 10 years, at most. A number of the trees are showing significant signs of infection that they are recommended for removal and it may be pertinent to remove all ash at the pre-development stage while tree and site conditions allow for the safest working environment.

2. Site Observations and the Tree Survey

2.1 Site Location

The site is located to the north of Poynton, adjacent to the A523, London Road North and Poynton Pool. The nearest address for the site is London Road North, Poynton, Stockport SK12 1BX, UK Grid reference for the centre of the site is SJ 92246 84605. The general location of the site is shown in Figure 2.1 below.

Figure 2.1 - General Location



General site location (not to scale) © OpenStreetMap contributors

2.2 Site Observations

The study area is an existing tree belt, situated between the A523 and Poynton Pool. It is predominantly flat, with a publicly accessible footpath running north/south, with occasional east/west connections to the A523. The study area slopes down to the A523, with a level change of approximately 1m.

2.3 Tree Preservation Orders and Conservation Areas

A Tree Preservation Order (TPO) and Conservation Area (CA) check was conducted using the interactive map found on the CEC website (maps.cheshireeast.gov.uk/ce/webmapping, undated) on 20/6/2022 to identify the presence of TPOs of CAs within the survey area. No TPOs listed on this interactive map appear within the Survey Area. The Survey Area is not covered by a CA.

2.4 Ancient Woodland

No part of the site is listed in the Ancient Woodland Inventory, as shown on the Multi-Agency Geographical Information for the Countryside (MAGIC) website (www.magic.defra.gov.uk). This is a spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

2.5 Ancient and Veteran Trees

The Ancient Tree Inventory (Woodland Trust, 2021) was checked on 20th June 2022 for the presence of verified veteran/ancient trees within the survey area. National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2021) refers to veteran trees as "*irreplaceable habitat*" which due to their "*age, size and condition, is of exceptional biodiversity, cultural or heritage value*".

Jacobs arboriculturalists base their assessment of potential veteran (ancient and notable) trees on the guidance provided by the Ancient Tree Forum and the Woodland Trust, specifically the document *Practical Guidance, Ancient Tree Guide 4: What are ancient, veteran, and other trees of special interest, November 2008, Woodland Trust*³ and the species-specific guidance on the Ancient Tree Inventory website⁴.

No trees within the Site Boundary appeared within this inventory. Jacobs qualified arboriculturalists did not identify any trees, during survey, which they considered ancient or veteran.

2.6 Tree Survey Results and Plans

The site was visited and surveyed by a qualified Jacobs arboriculturalist on the 26th May 2022.

The full findings of the tree survey are presented in the Tree Survey Schedule, Appendix E and the Tree Constraints Plan, Appendix F

Table 2.1, below, summarises the total number of trees surveyed and their relative BS5837:2012 categories.

Table 2.1: Summary of arboricultural features included in the survey

BS5837:2012 Category	Trees	Tree Groups	Hedges	Woodland	SUB TOTALS
A	2	0	0	0	2
B	62	0	0	0	62
C	22	12	0	0	34

³ <https://www.woodlandtrust.org.uk/media/1836/what-are-ancient-trees.pdf>

⁴ <https://ati.woodlandtrust.org.uk/how-to-record/species-guides/>

U	0	0	0	0	0
SUB TOTALS	86	12	0	0	98

- 'A' grade trees are of high quality and value and should be retained.
- 'B' grade trees are of moderate quality and value and should be considered for retention where possible, although care should be taken to avoid misplaced retention. Any scheme should consider the retention and protection of trees, but also the tree's future growth.
- The 'C' grade trees are of low quality and value and should not place a constraint on the proposals.
- From an arboricultural point of view, the 'U' grade trees cannot realistically be considered for retention as a living tree in the context of the current land use due to their low life expectancy of less than 10 years in their current poor condition.

The default position when designing any forthcoming scheme should be the retention of all items, as so far as is practicable, regardless of category grading. All trees provide positive environmental and ecological contributions, irrespective of current condition.

2.7 General Tree Observations

The trees surveyed are typical of those found within the area, with oak (*Quercus sp.*), beech (*Fagus sp.*) and lime (*Tilia sp.*) dominating the tree belt between the A523 and the public footpath, and typical moisture tolerant species, willow (*Salix sp.*) and alder (*Alnus sp.*), dominating the Pool edge. An understory of holly (*Ilex sp.*), hawthorn (*Crataegus sp.*) and hazel (*Corylus sp.*) is noted as growing beneath the principal trees within the tree belt. Further detail has been collected regarding the principal trees within this tree belt to ensure that any forthcoming design work can be advised by accurate tree information, allowing for a representative impact assessment to be undertaken.

Almost all the trees recorded are mature specimens which are well managed showing signs of regular pruning and inspection, with a number of trees having been recently monolithed. A number of the individual trees and tree groups along the edge of the lake are exhibiting typical growing behaviour of the species and have partially collapsed into the water, however they are continuing to grow vigorously.

It was noted that the A523 is a substantial construction which sat at a lower level than the base of the trees surrounding it. It is assumed that the ground topography and the highway surface build up and haunched kerb edges will have formed an effective root barrier to trees located close to it and it is highly unlikely any tree roots will be present under it. The same can be said for any of the trees located close to the edge of Poynton Pond and would limit the growth of any tree's roots below or within the footprint.

In general, the quality of individual trees is limited to a few Category A and a significant number of Category B trees, with most trees having a useful remaining lifespan and contribution to the local amenity. A number of trees are C category, being limited in their remaining lifespan and having such physiological or structural deficiencies that they could be easily replaced by new planting if this was suitably selected and maintained into maturity. While the individual trees are of moderate value, as a collective, they greatly contribute to the local landscape. It was noted there was little of no young planting which would indicate a forthcoming gap in tree age structure across the area, proactive management and the opening of gaps within the canopy structure could provide opportunities to diversify the age structure.

3. Conclusions and Recommendations

The survey has identified two trees of A category quality, however it has not identified any trees which would have any legal protection from removal. In general, the value of the trees surveyed lies in the collective rather than the individual and limited tree removals could be compensated for with high quality new planting which is maintained and given space to develop into full canopied, quality specimens in suitable open spaces within existing canopy structure.

It was also noted that the waterbody, paths and roadways are likely to have formed effective root barriers to trees growing in close proximity. Therefore, any works taking place within the footprints of these structures is unlikely to have a detrimental impact on the surrounding trees if they are retained.

It is recommended that once a fixed scheme layout is developed the tree schedule date and tree constraints plan is used to carry out an Arboricultural Impact Assessment (AIA) of the scheme. This document will assess the impact of the proposals on the current stock and will identify trees which will need to be removed, which can be retained, and which trees may require special measure adopting to allow for their retention should their RPA be compromised by the development.

Following the production of the AIA a site specific Arboricultural Method Statement (AMS) should be produced. This document will set out, chronographically the steps which need to be taken onsite to protect the retained trees during construction. The document should be supported by a Tree Protection Plan (TPP) which indicates the alignment of tree protection fencing, construction exclusion zones and any other specific tree protection measures deemed necessary.

3.1 Arboricultural Action Required - Next Steps

Table 3.1 lists the standard elements, as referenced in BS 5837:2012 (BSI, 2012), recommended to satisfy planning concerns for this scheme and to ensure appropriate tree protection is considered and applied throughout the duration of the works.

Table 3.1 - Follow up Arboricultural input relating to this scheme

Recommended arboricultural input	Purpose	Timing
Assessment of impacts to trees during design and once construction information is available. Arboricultural Impact Assessment (AIA)	To reduce the severity of the impact to trees by reducing working space required and informing of any design alterations where possible. Design alterations should be mindful of retention of key trees and tree screens where possible.	During detailed design following the planning process submission and following the appointment of a contractor, if the scheme continues through to construction.
Site specific Arboricultural Method Statement (AMS)	Work information package designed to provide contractors with details on how specific operations need to be performed to protect trees including use of ground protection.	Following final design agreement and usually as a part of planning conditions. Produced by the contractor for review by the client and/or Local Planning Authority following agreement.
Tree Protection Plan	Provide schematic details of how protective fencing shall be installed and any other pre-planned targeted tree protection.	Following final design agreement in conjunction with the site-specific AMS

Recommended arboricultural input	Purpose	Timing
AIA revisions	Further detail of impacts on key areas. OR Whenever a design change/addition is finalised or proposed.	Following any change in the design. The process could be either desktop based or require further site visits, depending on the scope of the original survey.
On site monitoring	To ensure protection measures and the method statement are being implemented correctly.	At agreed intervals before and during the construction phase of the project.

It is recommended to maintain contact with the project arboriculturist throughout the planning and design stage for the relevant additional input to be addressed at the appropriate point.

Impacts to the trees, as outlined within an AIA report, could alter with any changes to the current design proposals. Tree impacts should therefore be reviewed as the design process progresses with all relevant parties informed of the changes, where appropriate.

4. Legal Considerations

4.1 Town and Country Planning Act

Prior to the removal of the trees or groups listed in this report, or any tree surgery works being undertaken, it is essential that the trees are assessed again for legal protected status. These include TPOs and Conservation Areas (CA), Sites of Special Scientific Interest, locally or nationally designated sites, designed landscapes and ancient woodland .

Works (either above or below ground) to trees protected by TPO or CA is an offence under the Town and Country Planning Act 1990 (as amended), and in the Town and Country Planning (Tree Preservation) (England) Regulations 2012 and Section 192 of the Planning Act 2008.

4.2 Felling Licence

The felling of trees is regulated in England by the Forestry Act 1967 (the Act). The Forestry Commission is the government regulator that enforces the provisions of the Act.

The felling of growing trees in England is restricted under section 9 of the Act. It requires that felling is either authorised by a felling licence issued by the FC or the felling activity is excepted from the need for a licence. There are many exceptions to the need for a licence, based on the type of the tree, the location of the tree, the size of the tree, the nature and scope of the felling activity and the person responsible for the felling. These are primarily set out in section 9 of the Act as well as the Forestry (Exceptions from Restriction of Felling) Regulations 1979.

The most relevant exemption is;

'Section 9 - Requirement of licence for felling (1) A felling licence granted by the appropriate forestry authority shall be required for the felling of growing trees, except in a case where by or under the following provisions of this Part of this Act this subsection is expressed not to apply...

(d) is immediately required for the purpose of carrying out development authorised by planning permission granted or deemed to be granted under the Town and Country Planning Act 1990 or the enactments replaced by that Act, or under the Town and Country Planning (Scotland) Act 1997.

Advice from a suitably qualified arboriculturalist should be sought before any felling takes place onsite.

The granting of permission to remove trees covered by a TPO by the Local Planning Authority does not remove the need to obtain a felling licence from FC if more than 5 m³ of timber are to be felled in a calendar quarter and none of the exemptions apply.

4.3 Wildlife

Bats are afforded special protection by law. If a roost is discovered, all work in the vicinity should cease immediately and the appropriate authorities informed (Natural England). Roosts need to be inspected by a project Ecologist before work can recommence.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to take, disturb or destroy the nest or eggs of any wild bird during its breeding season.

5. References

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Appendix A. Survey Methodology

Table 5.1: Methodology

Parameters Recorded	Collection Methodology
Tree location	Handheld tablet with GPS functionality.
Crown spread, clearance and first branch break/direction	Metres measured with laser measure, direction with compass
Height and diameter	Clinometer and diameter tape at 1.5 meters above ground
Structural and physiological condition	External visual tree assessment (from the ground) – The Body Language of Trees, Research for Amenity Trees No 4 (Mattheck and Breloer, 1994)
Root Protection Area (RPA)	Calculation method in BS 5837:2012 (BSI, 2012)

Appendix B. Comprehensive Glossary of Arboricultural Terms

- AIA: Arboricultural Impact Assessment.
- AMS: Arboricultural Method Statement.
- Ancient tree: An ancient tree is exceptionally valuable attributed with great age/size/cultural heritage/biodiversity value as a result of significant wood decay and the habitat created from the ageing process. All ancient trees are veteran trees with very few trees of any species reaching the ancient life-stage.
- Bark: A term usually applied to all the tissues of a woody plant lying outside the vascular cambium.
- Buttress zone: The region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper side of their junction.
- Canker: A lesion formed by the death of bark and cambium often due to fungal or bacterial infection.
- Condition: An indication of the physiological vitality of the tree. Where the term 'condition' is used in a report, it should not be taken as an indication of the stability of the tree.
- Conservation Area: A designated area that requires notice (currently six weeks) to be given to the local planning authority prior to the commencement of any tree works.
- Construction exclusion zone: Area based on the Root Protection Area (in square metres) to be protected during development, by the use of barriers and/or ground protection.
- Crown/Canopy: The main foliage bearing section of the tree.
- Crown lifting: A term used to describe the removal of limbs and small branches to a specified height above ground level.
- Deadwood: Branch or stem wood bearing no live tissues. Retention of deadwood provides valuable habitat for a wide range of species and seldom represents a threat to the health of the tree. Removal of deadwood can result in the ingress of decay to otherwise sound tissues and climbing operations to access deadwood can cause significant damage to a tree. Removal of deadwood is generally recommended only where it represents an unacceptable level of hazard.
- Dieback: The death of parts of a woody plant, starting at shoot-tips or root-tips.
- Diameter at Breast Height (DBH): Stem diameter measured at a height of 1.5 metres (UK) or the nearest measurable point. Where measurement at a height of 1.5 metres is not possible, another height may be specified.
- Habit: The overall growth characteristics, shape of the tree and branch structure.
- Hazard beam: An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting.
- Minor deadwood: Dead wood of a diameter less than 25mm and or unlikely to cause significant harm or damage upon impact with a target beneath the tree.
- Notable: Notable trees are usually mature trees which may stand out in the local environment because they are large in comparison with other trees around them
- Pollarding: is the removal of the tree canopy, back to the stem or primary branches. Pollarding may involve the removal of the entire canopy in one operation or may be phased over several years. The period of safe retention of trees having been pollarded varies with species and individuals. It is usually necessary to re-pollard on a regular basis, annually in the case of some species.
- Primary branch: A major branch, generally having a basal diameter greater than 0.25 x stem diameter.
- Pruning: The removal or cutting back of twigs or branches, sometimes applied to twigs or small branches only, but often used to describe most activities involving the cutting of trees or shrubs.
- Root protection area (RPA): An area of ground surrounding a tree that contains sufficient rooting volume to ensure the tree's survival, calculated with reference to Table 2 of BS5837 (2005).
- Snag/stub: In woody plants, a portion of a cut or broken stem, branch or root which extends beyond any growing-point or dormant bud; a snag usually tends to die back to the nearest growing point.
- Stem/s: The main supporting structure/s, from ground level up to the first major division into branches.
- Topping: In arboriculture it is the removal of the crown of a tree, or of a major proportion of it.
- Tree Preservation Order (TPO): Is an order made by the local authority and placed upon individual trees, groups of trees or areas of trees. The local authority must usually grant permission prior to any works undertaken to affected trees.
- Veteran tree: A loosely defined term for an old specimen that is of interest biologically, culturally or aesthetically because of its age, size or condition and which has usually lived longer than the typical upper age range for the species concerned.

Appendix C. Cascade Chart of Tree Quality Assessment (taken from BS 5837:2012)

Category and definition	Criteria (Including subcategories where appropriate)		
Trees unsuitable for retention (see note)			
Category U			
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	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 (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)		
	Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline		
	Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.		
Trees to be considered for retention			
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values including conservation
Category A			
Trees of high quality with an remaining estimated life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	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 (e.g. veteran or semi-formal arboricultural trees or wood-pasture)
Category B			
Trees of moderate quality with an remaining estimated life expectancy of at least 20 years	Trees that might be included in Category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such as they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
Category C			
Trees of low quality with an remaining estimated life expectancy of at least 10 years, or younger trees with a stem diameter below 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/transient landscape benefits	Trees with no material conservation or other cultural value

Appendix D. Tree Survey Schedule Key

Column Header	Explanation
Tree ID	T – Tree G – Group/Hedgerow/Woodland H- Hedgerow
Diameter at breast height (DBH)	Tree stem diameter measured at 1.5m from the ground. This reported figure relates to either single stemmed trees or the calculated DBH for multi-stemmed trees. In some instances, DBH will be taken from a different height as specified in 'Observations'.
Canopy spread – N E S W	Canopy extents from main stem of individual tree will be shown using cardinal points in metres i.e. N (north) 7, E (east) 6, S (south) 5, W (west) 7. Single largest canopy extent reported for groups/woodland/hedgerows.
Crown Clearance	To inform on ground clearance.
Age Class	Young (Y) – A tree in the first quarter of its life span. Semi Mature (SM) – A tree in the latter stages of its first quarter, well established. Early Mature (EM) – A tree halfway through its life span, significant further growth potential. Mature (M) – A tree at or near its potential maximum size which is still growing vigorously in its third quarter of life span. Over Mature (OM) – A tree in decline in its final quarter of life span. Potential Veteran (V) – A tree which, because of its age, size, and condition, is of exceptional biodiversity, cultural or heritage value
Structural condition (S)	Good (G) - No signs of decay or structural weakness. Fair (F) - Minor defects not causing structural weakness. Poor (P) - Severe decay in the main stem or branches/structurally weak.
Physiological condition (P)	Good (G) - Showing no adverse risk of failure/defects. Fair (F) - Showing minor signs of deterioration. Poor (P) - Unlikely to recover to a good condition.
Estimated Remaining Contribution (ERC)	<10 - Less than 10 years of normal life expectancy remaining. 10+ - Between 10 and 20 years of normal life expectancy remaining. 20+ - Between 20 and 40 years of normal life expectancy remaining. 40+ - Tree would normally expect to live for more than 40 more years.
Root Protection Area (RPA)	Root Protection Area dimensions as calculated using formulae in BS5837:2012. Applied as either radially from an individual tree stem (individually surveyed trees)

	or as an offset from the canopy extents of a collective feature (tree group, hedgerow, or woodland).
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Appendix E. Tree Survey Schedule

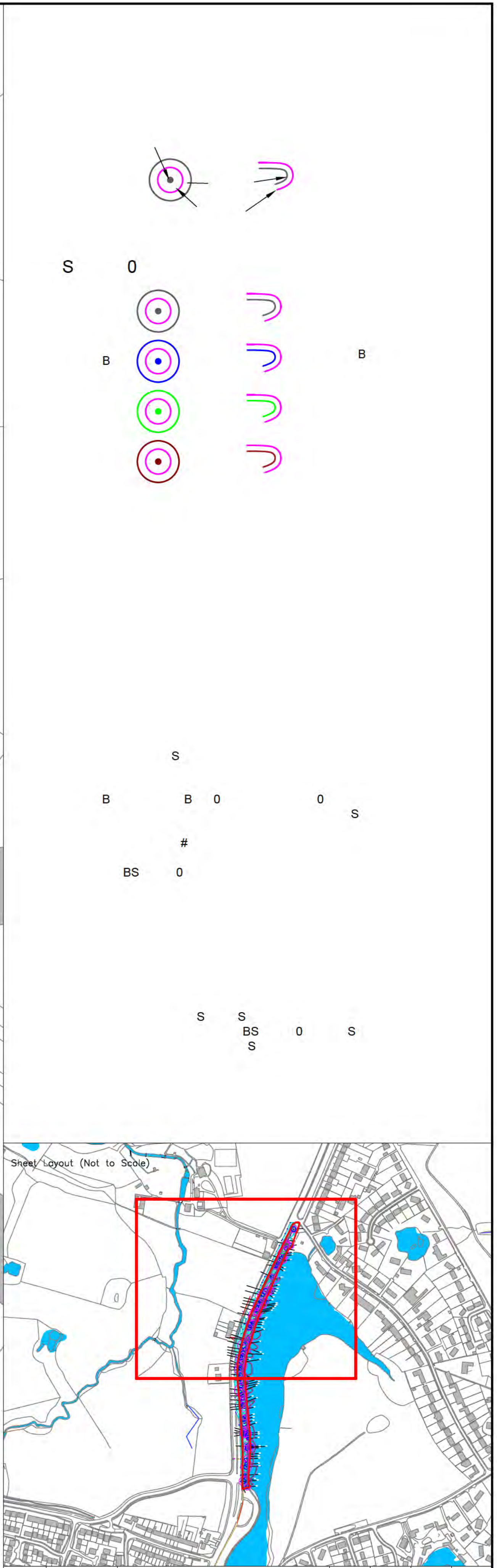
Client: Cheshire East Council				Site: Poynton Pool Reservoir Flood Resilience Improvement Scheme												
Date of Survey: 26/05/2022				Consultant: Thomas Cleeton												
Tagged: N/A				Weather: Overcast, Drizzle												
Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
				North	East	South	West									
T1	Sycamore (Acer pseudoplatanus)	15	# 650	5	5	5	5	1	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	20+	B1	7.8
T2	Common lime (Tilia x europaea)	5	300	3	3	3	3	1	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	10+	C1	3.6
T3	Sycamore (Acer pseudoplatanus)	16	650	5	5	5	5	1	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	20+	B1	7.8
T4	Sycamore (Acer pseudoplatanus)	11	650	2	2	2	2	1	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age Pollard - Recently cut	No Work Recommended	10+	C1	7.8
T5	Sycamore (Acer pseudoplatanus)	14	470	4	4	4	4	1	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	20+	B1	5.64
T6	Copper beech (Fagus sylvatica Purpurea)	17	1020	5	5	5	5	1	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	40+	A1	12.24
T7	English oak (Quercus robur)	11	710	3	5	3	3	1	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.52
T8	English oak (Quercus robur)	17	840	5	5	5	5	1	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	10.08
T9	Common alder (Alnus glutinosa)	9	300 300 250	2	5	2	2	1	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	5.91
T10	Sycamore (Acer pseudoplatanus)	13	670	5	5	5	5	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.04
T11	Yew (Taxus baccata)	8	400	3	3	3	3	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	4.8
T12	Sycamore (Acer pseudoplatanus)	13	570	4	4	4	4	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	20+	B1	6.84
T13	Crack willow (Salix fragilis)	11	600	2	12	2	2	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age Fallen in pond	No Work Recommended	10+	C1	7.2
T14	Common ash (Fraxinus excelsior)	13	700	4	4	4	4	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Ash Health Class 2 (75% -50% Canopy) Condition considered typical of species and age	No Work Recommended	10+	C1	8.4
T15	Sycamore (Acer pseudoplatanus)	10	400	4	4	4	4	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	10+	C1	4.8
T16	Common alder (Alnus glutinosa)	14	700 400	4	4	4	4	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	20+	B1	9.67
T17	Sycamore (Acer pseudoplatanus)	12	500	4	4	4	4	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ivy or climbing plant Condition considered typical of species and age	No Work Recommended	10+	C1	6
T18	Common alder (Alnus glutinosa)	12	300 120 100	3	3	3	3	3	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	4.06
T19	Sycamore (Acer pseudoplatanus)	17	660	6	6	6	6	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Deadwood - Minor Condition considered typical of species and age	No Work Recommended	20+	B1	7.92
T20	English oak (Quercus robur)	17	830	5	5	2	5	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	9.96
T21	Common alder (Alnus glutinosa)	12	700	5	5	5	5	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T22	Common lime (Tilia x europaea)	19	750	5	5	5	5	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Decay - Open cavity / cavities Condition considered typical of species and age Decay seam on south of stem to 5m	No Work Recommended	20+	B1	9
T23	Common lime (Tilia x europaea)	19	750	5	5	5	5	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Epicormic growth - Bole / principal stems Condition considered typical of species and age	No Work Recommended	20+	B1	9
T24	Norway maple (Acer platanoides)	16	660	4	4	4	4	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.92
T25	Common alder (Alnus glutinosa)	11	550	2	8	2	2	3	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	6.6

Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
				North	East	South	West									
T26	Crack willow (<i>Salix fragilis</i>)	11	500	2	8	2	2	3	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	6
T27	Crack willow (<i>Salix fragilis</i>)	11	500	2	12	2	2	3	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	6
T28	English oak (<i>Quercus robur</i>)	11	700	5	4	2	7	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Form - Asymetric crown Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T29	Horse chestnut (<i>Aesculus hippocastanum</i>)	13	550	4	4	2	4	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Form - Asymetric crown Condition considered typical of species and age	No Work Recommended	20+	B1	6.6
T30	English oak (<i>Quercus robur</i>)	13	500	1	7	1	1	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Form - Asymetric crown Condition considered typical of species and age	No Work Recommended	10+	C1	6
T31	Beech (<i>Fagus sylvatica</i>)	5	1130	1	1	1	1	N/A	Mature	Poor	Poor	Pollard - Recently cut	No Work Recommended	10+	C1	13.56
T32	Common alder (<i>Alnus glutinosa</i>)	10	450	2	5	2	2	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	5.4
T33	Sycamore (<i>Acer pseudoplatanus</i>)	5	650	1	1	1	1	3	Mature	Poor	Poor	Access to inspect base - Restricted / obscured Pollard - Recently cut	No Work Recommended	10+	C1	7.8
T34	Yew (<i>Taxus baccata</i>)	10	300	3	3	3	3	2	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	3.6
T35	Common lime (<i>Tilia x europaea</i>)	10	700	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T36	Common lime (<i>Tilia x europaea</i>)	16	700	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T37	Beech (<i>Fagus sylvatica</i>)	18	600	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.2
T38	Common lime (<i>Tilia x europaea</i>)	18	1000	6	6	6	6	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Epicormic growth - Bole / principal stems Condition considered typical of species and age	No Work Recommended	20+	B1	12
T39	Horse chestnut (<i>Aesculus hippocastanum</i>)	12	400	3	3	3	3	2	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age Suppressed	No Work Recommended	10+	C1	4.8
T40	Beech (<i>Fagus sylvatica</i>)	19	1000	6	6	6	6	2	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	12
T41	Common ash (<i>Fraxinus excelsior</i>)	11	300	3	3	3	3	2	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Ash Health Class 2 (75% -50% Canopy) Condition considered typical of species and age	No Work Recommended	10+	C1	3.6
T42	English oak (<i>Quercus robur</i>)	7	900	4	4	4	4	2	Mature	Poor	Poor	Access to inspect base - Restricted / obscured Decay / structural defect - Bole Condition considered typical of species and age	No Work Recommended	20+	B1, 3	10.8
T43	Beech (<i>Fagus sylvatica</i>)	17	660	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.92
T44	Horse chestnut (<i>Aesculus hippocastanum</i>)	17	700	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T45	Beech (<i>Fagus sylvatica</i>)	17	800	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	9.6
T46	Common lime (<i>Tilia x europaea</i>)	17	600	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.2
T47	Beech (<i>Fagus sylvatica</i>)	17	920	6	6	6	6	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	40+	A1	11.04
T48	Common lime (<i>Tilia x europaea</i>)	17	700	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T49	Beech (<i>Fagus sylvatica</i>)	17	750	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age Basal cavity	No Work Recommended	20+	B1	9
T50	Beech (<i>Fagus sylvatica</i>)	19	900	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	10.8
T51	Common alder (<i>Alnus glutinosa</i>)	14	200 200 200 150	3	3	3	3	2	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	4.53
T52	Common lime (<i>Tilia x europaea</i>)	16	400 300 300 300	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.87
T53	Common lime (<i>Tilia x europaea</i>)	18	# 800	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	9.6
T54	Common alder (<i>Alnus glutinosa</i>)	18	500 300 300	2	6	2	2	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	7.87
T55	Common alder (<i>Alnus glutinosa</i>)	18	350	2	6	2	2	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	4.2
T56	Common lime (<i>Tilia x europaea</i>)	18	550	4	4	4	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	6.6
T57	Beech (<i>Fagus sylvatica</i>)	18	1120	6	6	6	6	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	13.44
T58	Common lime (<i>Tilia x europaea</i>)	18	1000	6	6	6	6	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Epicormic growth - Bole / principal stems Condition considered typical of species and age	No Work Recommended	20+	B1	12
T59	Common lime (<i>Tilia x europaea</i>)	16	550	3	3	3	3	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	6.6

Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
				North	East	South	West									
T60	Common lime (Tilia x europaea)	16	650	5	5	1	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.8
T61	Beech (Fagus sylvatica)	16	550	1	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	6.6
T62	Norway maple (Acer platanoides)	13	500	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	6
T63	Copper beech (Fagus sylvatica Purpurea)	17	1050	4	6	6	6	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	12.6
T64	Copper beech (Fagus sylvatica Purpurea)	14	450	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	5.4
T65	English oak (Quercus robur)	16	700	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T66	Beech (Fagus sylvatica)	16	700	6	6	6	6	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T67	Beech (Fagus sylvatica)	16	600	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.2
T68	Common lime (Tilia x europaea)	16	800	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	9.6
T69	Sycamore (Acer pseudoplatanus)	14	650	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.8
T70	Horse chestnut (Aesculus hippocastanum)	16	650	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.8
T71	Holm oak (Quercus ilex)	14	600	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.2
T72	Beech (Fagus sylvatica)	14	600	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.2
T73	Holm oak (Quercus ilex)	14	400	3	3	3	3	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	4.8
T74	Copper beech (Fagus sylvatica Purpurea)	18	800	6	6	6	6	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	9.6
T75	Sycamore (Acer pseudoplatanus)	16	600	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.2
T76	Common alder (Alnus glutinosa)	16	700	4	7	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.4
T77	Common alder (Alnus glutinosa)	16	700	4	7	4	4	2	Mature	Poor	Poor	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	10+	C1	8.4
T78	Beech (Fagus sylvatica)	16	600	2	5	5	5	2	Mature	Poor	Poor	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.2
T79	Beech (Fagus sylvatica)	16	810	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	9.72
T80	Beech (Fagus sylvatica)	16	970	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	11.64
T81	Beech (Fagus sylvatica)	11	530	3	3	3	3	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	6.36
T82	Beech (Fagus sylvatica)	19	720	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	8.64
T83	Common lime (Tilia x europaea)	19	450 450 500	5	5	5	5	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	9.71
T84	Poplar sp. (Populus sp.)	17	550	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	6.6
T85	Sycamore (Acer pseudoplatanus)	13	600	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	7.2
T86	Field maple (Acer campestre)	13	450	4	4	4	4	2	Mature	Fair	Fair	Access to inspect base - Restricted / obscured Condition considered typical of species and age	No Work Recommended	20+	B1	5.4
G1	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	2	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G2	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	N/A	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G3	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	N/A	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G4	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	N/A	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G5	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	N/A	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G6	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	N/A	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G7	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	2	2	2	N/A	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G8	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	N/A	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G9	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	N/A	Early Mature	Fair	Fair	Partially collapsed	No Work Recommended	10+	C1	3
G10	Common alder (Alnus glutinosa) Crack willow (Salix fragilis)	10	# 250	2	10	2	2	N/A	Early Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	3

Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
				North	East	South	West									
G11	Birch sp. (Betula sp.) Common alder (Alnus glutinosa) Common ash (Fraxinus excelsior) Common hawthorn (Crataegus monogyna) Common hazel (Corylus avellana) Common holly (Ilex aquifolium)	6	# 150	2	1.5	1.5	1.5	0.5	Early Mature	Fair	Fair	Condition considered typical of species and age Understory group beneath principal trees	No Work Recommended	10+	C1	1.8
G12	Birch sp. (Betula sp.) Common alder (Alnus glutinosa) Common ash (Fraxinus excelsior) Common hawthorn (Crataegus monogyna) Common hazel (Corylus avellana) Common holly (Ilex aquifolium)	6	# 150	2	1.5	1.5	1.5	0.5	Early Mature	Fair	Fair	Condition considered typical of species and age Understory group beneath principal trees	No Work Recommended	10+	C1	1.8

Appendix F. Tree Constraints Plan



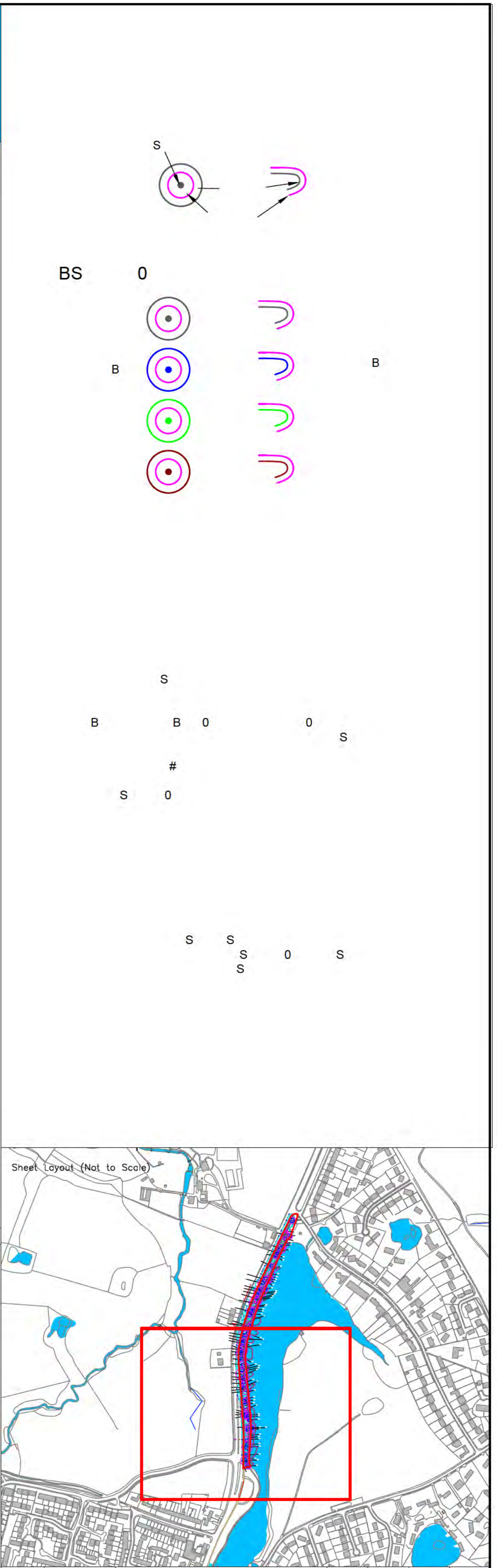
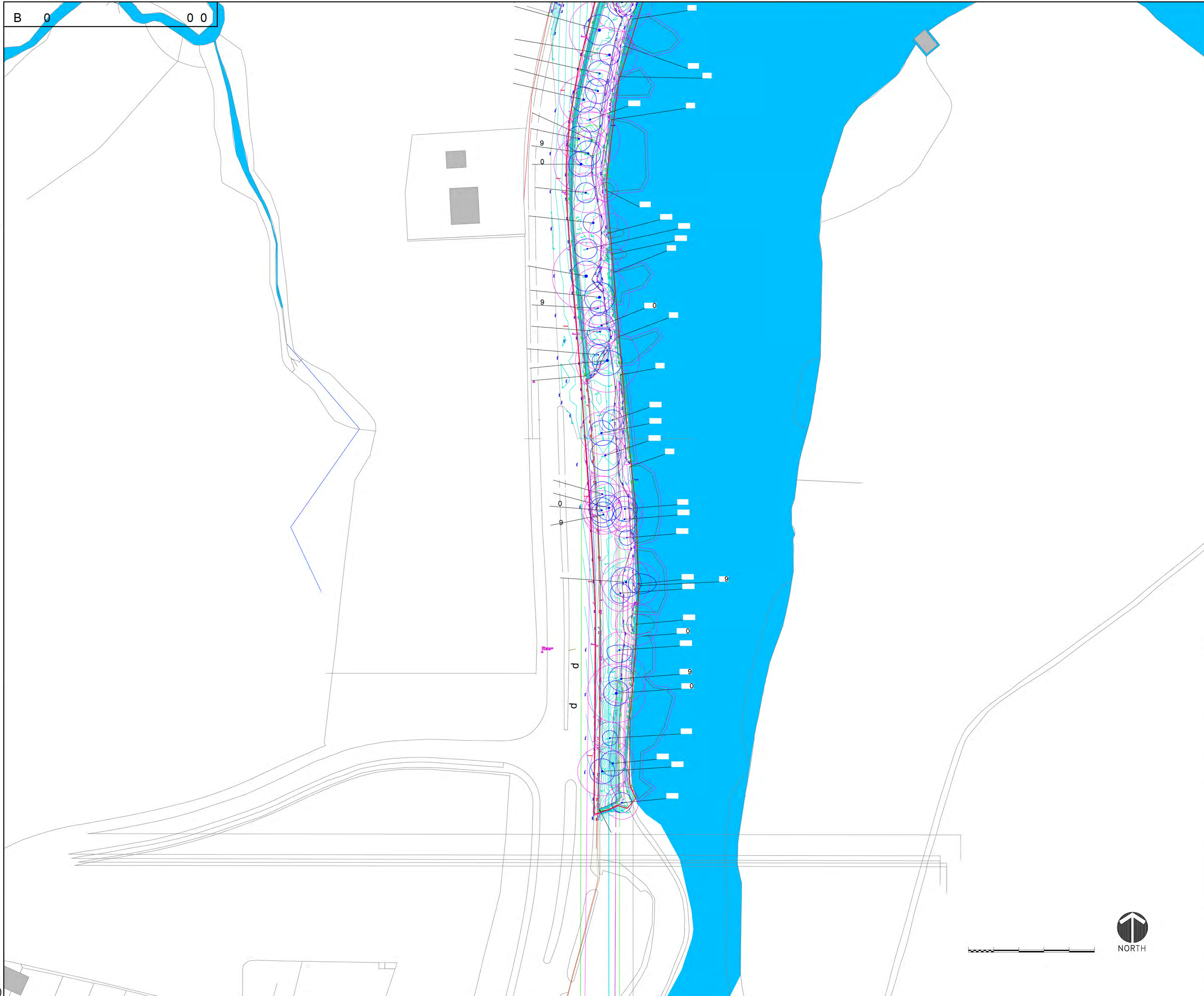
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