

Tree Survey and Arboricultural Constraints

**Gorton Library
Garratt Way
Gorton
M18 8HE**



For

Manchester City Council

By

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1. GENERAL INTRODUCTION

- 1.1 The Greater Manchester Ecology Unit (GMEU) has been instructed to carry out a tree survey at Gorton Library on Garratt Way, Gorton, Manchester in relation to proposed re-development of the site.

This report relates to trees and tree groups within the survey boundary as shown on the plan below. The report describes the extent and condition of tree cover within and immediately adjacent to the site and highlights any above and below ground constraints presented by existing tree cover.

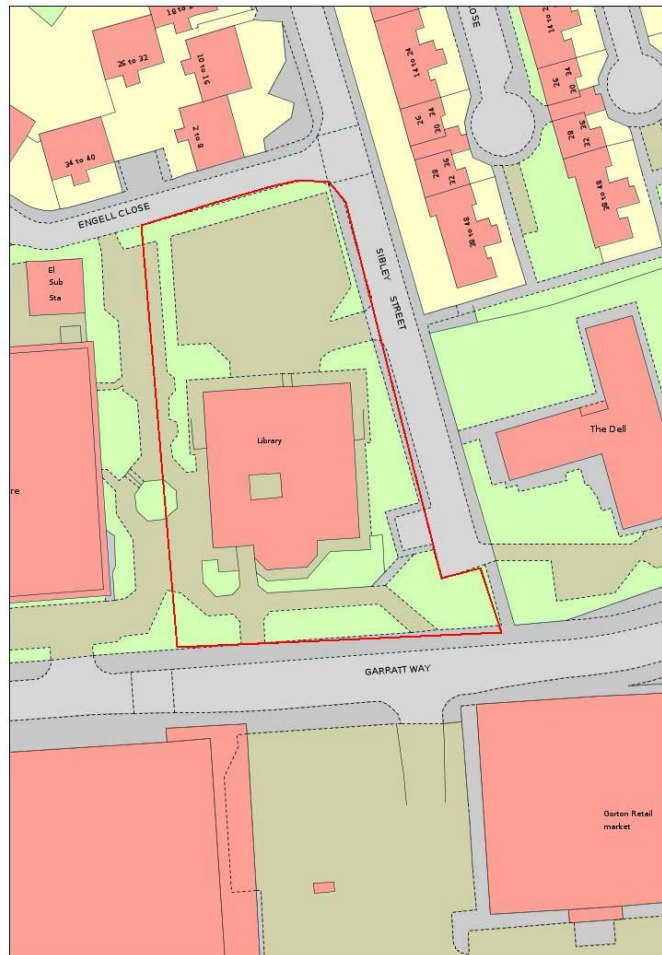


Fig 1 Location of Gorton Library and extent of site surveyed (in red)



Fig 2 Aerial View of Gorton library and surrounds, 2017

- 1.2. The survey has been carried out in accordance with BS5837:2012 "Trees in relation to design, demolition and construction – Recommendations."

Small trees of less than 10cm stem diameter, and areas of undergrowth are described in general terms but are not recorded in detail, except where their condition or presence merits particular attention. Within larger groups and woodlands, trees are described collectively except where dominant specimens merit individual recording.

2. STANDARD CONDITIONS RELATING TO TREE SURVEYS

- 2.1. Tree surveys are undertaken from ground level using established visual assessment methodology. This is primarily a survey to assess the general health, condition, value and life expectancy of existing trees as part of the planning and design process. **The report should not be read as a detailed tree safety or risk assessment.**
- 2.2. Where obvious defects are noted and further investigation is required, either by climbing or the use of specialised decay detection equipment, this will be identified in the report.
- 2.3. The findings and recommendations contained within this report are valid for a period of twelve months. Trees are living organisms subject to change. It is strongly recommended that they are inspected at regular intervals for reasons of safety.
- 2.4. Whilst every effort has been made to detect defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. Extreme climatic conditions can cause damage to apparently healthy trees.
- 2.5. The findings and recommendations contained within this report are based on the current site conditions. The construction of roads, buildings, service wayleaves, removal of shelter, and alterations to established soil moisture conditions can all have a detrimental effect on the health and stability of retained trees. Accordingly, a re- inspection of retained trees is recommended on completion of any development operations.
- 2.6. This report has been prepared for the sole use of Manchester City Council and their appointed agents. Any third party referring to this report or relying on information contained within it does so entirely at their own risk.

3 GENERAL DESCRIPTION OF THE SITE

Gorton Library is located in a very built-up area of east Manchester close to busy main roads (Hyde Road & Garratt Way). The surrounding area supports residential development, businesses and community facilities and associated infrastructure. There is little in the way of open greenspace locally and local tree cover is limited.

The Library building is relatively modern; the main entrance (southern aspect) faces the road while at the rear (northern aspect) there is a small car park. Tree cover is limited to the site boundaries, generally surrounding the rear car park. The trees have clearly been planted as part of the landscape scheme for the Library. The trees are mainly immature and semi-mature broadleaved trees, a mix of native trees and ornamental (garden) tree varieties. Tree health is generally reasonable given the context.

The trees are of limited, local landscape value and limited nature conservation value, although they do contribute to local tree cover in an area where tree cover is generally sparse.

4 STATUTORY PROTECTION

The site is not designated at any level for its nature conservation value.

The trees subject to survey are not specially protected by a tree protection order.

5 TREE SURVEY AND ANALYSIS

- 5.1. A visual assessment has been carried out from the ground level of trees within and immediately adjacent to the site. The location of the individual trees is plotted on the attached Tree Survey Plan, and their condition and any recommended remedial works are recorded in detail in Table 1 at the end of this document. This records relevant details in accordance with the recommendations contained in BS 5837:2012, and includes:

- Tree number (Tree tag number where used, or plan reference number)
- Tree species
- Stem diameter at breast height (1.5m above ground level)
- Canopy spread in metres (average)
- Tree height (estimate in metres)
- Crown height (clearance to lowest branches in metres)
- Tree Condition Category

- General condition (good, fair, poor, dead)
 - Age (Young, Early-mature, middle-aged, mature, over-mature, veteran)
 - Estimated Remaining Contribution (ERC) in years
 - Comments and observations on the overall health and condition of the tree, highlighting any problems or defects
 - Recommended remedial works, where necessary
- 5.2. Where appropriate, recommendations have been made on necessary remedial action such as tree surgery or felling. This is specified where there is likely to be significant risk to safety or tree health, or to abate a nuisance. The recommendations are general in nature and do not constitute a detailed work specification. Specifications, where required, can be provided to accord with the guidance and recommendations contained in BS3998:2010, "Tree work – Recommendations." Any recommendations are made on the basis that they are undertaken by a suitably qualified arboricultural contractor.
- 5.3. The trees have been categorised in accordance with the guidelines contained in BS 5837 as follows:
- Category A
 - Category B
 - Category C
 - Category U.
- 5.4. For details of the above tree categorisation, refer to Appendix 1.
- 5.5. The purpose of the tree categorisation method is to identify the quality and value of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed, retained or compensated in the event of development occurring. The presence of trees and their quality is only one factor in the design and planning process, and the retention of good quality, healthy trees may be inappropriate in the context of wider planning and development considerations.
- 5.6. The tree survey was carried out in September 2022.

6 CONSTRAINTS POSED BY EXISTING TREES

- 6.1 If trees are to be retained as part of future developments then In order to minimise the risk of long-term damage to trees from construction operations, particular care is required to protect them from physical damage. Significant damage can be caused to root systems by ground level changes; soil compaction; contamination from oils and cement; and changes in soil moisture content. For these reasons, BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' sets out a recommended Root Protection Area (RPA) in m² based on the stem diameter of the tree. The RPA represents the anticipated below-ground constraints presented by trees within the proposed development area.
- 6.2 Above-ground constraints include ultimate tree height and canopy spread which will affect both physical presence and daylight availability to any proposed structures. Species characteristics, such as evergreen or dense foliage, potential for branch drop, fruit fall, etc., will all have an influence on the potential for development of the site. Easements for underground and above-ground apparatus; road safety and visibility; or the proposed end use of space adjacent to retained trees also needs to be fully considered.
- 6.3 Where it is determined that trees should be retained because of their quality and amenity importance, the impact of proposed designs must be assessed against the requirements of the tree, taking into account the RPA and all other relevant factors. Whilst the RPA should generally be protected where possible, any proposed incursion into the RPA should comply with the recommendations of BS5837, Sections 6 and 7. Site-specific method statements may be required to accompany such proposals

7 RESULTS

- 7.1 The trees on the site are confined to the site perimeter, particularly to the rear around the car park.



Photo 1 Typical view of the trees at the car park perimeter

There are several semi-mature 'feature' trees along the road frontage at the entrance to the Library. The most prominent of these are a semi-mature Horse Chestnut and a multi-stemmed ornamental Birch (*Betula utilis jacquimontii*).



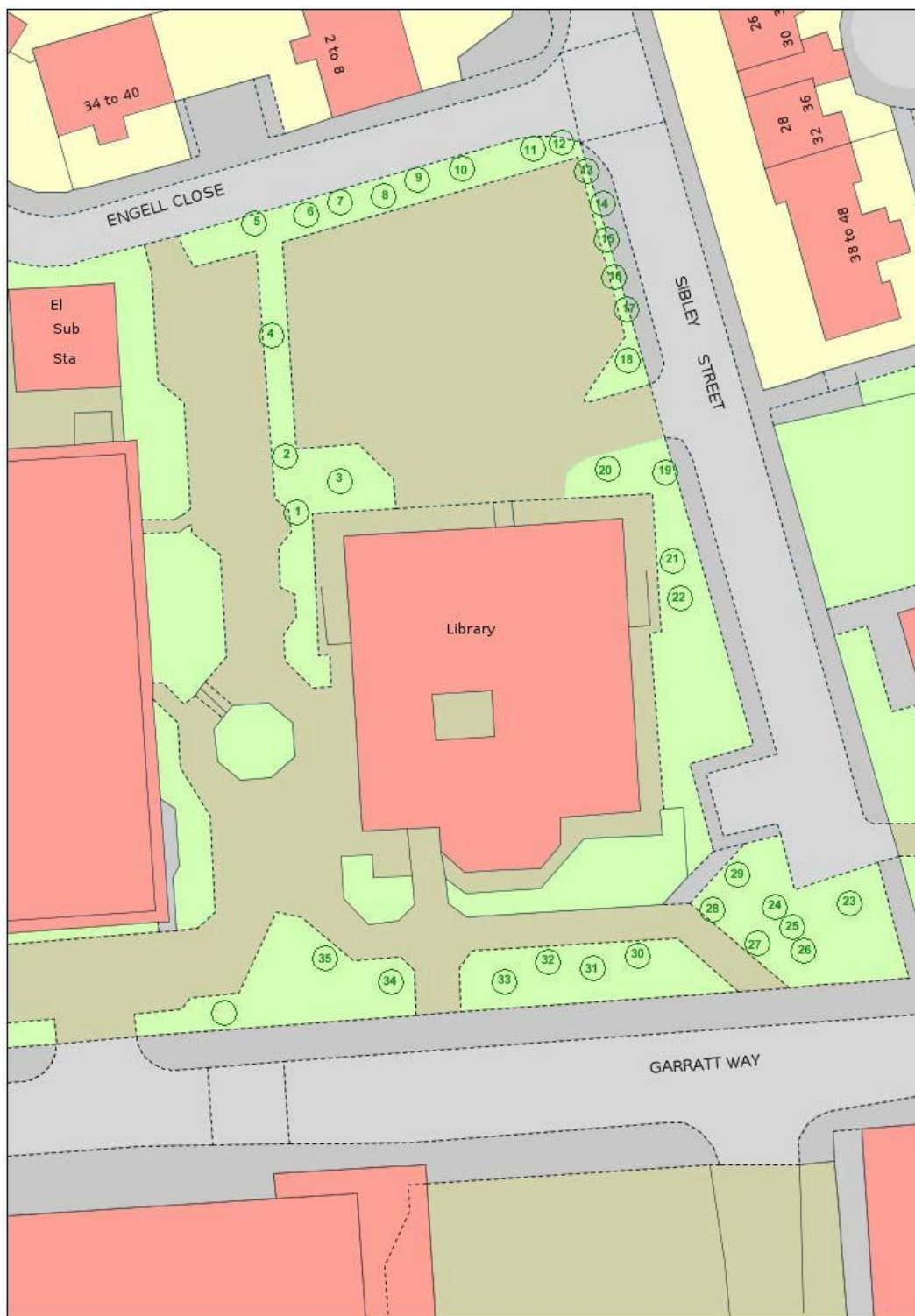
Photo 2 Multi-stemmed *Betula utilis Jacquemontii* at the front of the Library

- 7.2 In general the trees are all of an even age (young or semi-mature) probably because they were all planted at the same time. Because of their relatively young age and the urban location the trees are of limited local public amenity and nature conservation value. There were no old bird nests in evidence and the trees were assessed as having negligible potential to support bats.

Table 1 Tree Survey Schedule (see plan below for tree locations)

Tree no from Plan	Species	DBH cm	Canopy Spread m	Ht m	BS Cat	Condition	Age	ERC yrs	Comments and Recommendations
1	<i>Sorbus</i> sp	70	3	6	B	Reasonable	SM	30	
2	<i>Sorbus</i> sp	40	2	5	B	Reasonable	SM	30	
3	<i>Prunus</i> sp	40	2	5	B	Reasonable	SM	30	
4	<i>Fagus hedge</i>	-	-	-	-	-	-	-	Well-managed short length of beech hedge
5	<i>Acer</i> sp	50	4	6	B	Reasonable	SM	30	Multi-stemmed from 1.5 m leading to wide canopy
6	<i>Acer</i> sp	40	2	5	C	Poor	IM	30	
7	<i>Acer</i> sp	40	2	5	C	Poor	IM	30	
8	<i>Acer</i> sp	40	2	5	C	Poor	IM	30	
9	<i>Betula pendula</i>	40	2	6	B	Reasonable	SM	30	
10	<i>Betula pendula</i>	40	2	8	B	Reasonable	SM	30	
11	<i>Acer</i> sp	50	3	6	C	Poor	IM	30	Poor condition with some dieback evident
12	<i>Aesculus hippocastaneum</i>	50	3	7	B		SM	40	Reasonable condition
13	<i>Acer</i> sp	20	2	5	B	Reasonable	IM	60	
14	<i>Acer</i> sp	50	3	5	B	Poor	SM	40	Multi-stemmed
15	<i>Acer</i> sp	40	2	6	B	Reasonable	IM	30	
16	<i>Acer</i> sp	40	2	6	B	Reasonable	IM	30	
17	<i>Acer</i> sp	40	2	6	B	Reasonable	IM	30	
18	<i>Acer</i> sp	40	2	6	C	Poor	IM	30	Multi-stemmed
19	<i>Acer</i> sp	40	2	6	B	Reasonable	IM	30	Multi-stemmed from 2m
20	<i>Acer</i> sp	40	2	6	B	Reasonable	IM	30	
21	<i>Acer</i> sp	40	2	6	B	Reasonable	IM	30	
22	<i>Acer</i> sp	40	2	6	B	Reasonable	IM	30	
23	<i>Aesculus hippocastaneum</i>	70	3	7	B	Good	SM	60	Reasonable condition, probably the most

prominent tree on the site									
24	<i>Prunus sp</i>	30	1	6	C	Poor	IM	20	Poor condition
25	<i>Prunus sp</i>	30	1	6	C	Poor	IM	20	Poor condition
26	<i>Prunus sp</i>	30	1	6	C	Poor	IM	20	Poor condition
27	<i>Pinus sp</i>	50	2	7	B	Reasonable	IM	40	
28	<i>Pinus sp</i>	50	2	7	B	Reasonable	IM	40	
29	<i>Pinus sp</i>	50	2	7	B	Reasonable	IM	40	
30	<i>Prunus sp</i>	30	1	4	C	Poor	IM	20	Poor condition
31	<i>Betula utilis var Jacquemontii</i>	-	4	10	B	Reasonable	SM	30	Feature tree close to the Library entrance, although multi-stemmed reasonable quality
32	<i>Fraxinus sp</i>	40	2	5	C	Poor	IM	20	Poor condition
33	<i>Tilia sp</i>	30	2	5	B	Reasonable	IM	40	
34	<i>Acer sp</i>	50	4	8	B	Reasonable	SM	40	
35	<i>Fagus sp</i>	40	3	4	B	Reasonable	SM	40	



Locations of numbered trees referred to in Table 1

APPENDIX A - Tree Retention Categories

A.1 BS5837, the British Standards document for trees in relation to construction, gives guidelines for ensuring that trees on development sites are retained or removed according to their future potential to become an asset in harmony with the development or an object of resentment and a potential threat to public safety.

A.2 The early assessment of a site can ensure that trees to be retained can be afforded adequate protection from the onset of construction right through to completion and long into the future. A.3 Planning conditions and the Town and Country Planning Act 1990 can be used following a survey to enforce the adequate protection for these trees in accordance with BS5387.

A.4 Care should be exercised over misplaced tree preservation. Attempts to retain too many or unsuitable trees on a site are liable to result in excessive pressure on the trees during development work and subsequent demands for their removal. The end result is usually fewer and less suitable trees than would be the case if proper planting, selection and conservation had been applied from the outset.

A.5 Particular caution is needed over retention of large old trees which become enclosed in the new development. Such trees may be less resilient and more likely to die as a result of the development, and even if they survive in the short term, they may die long before the new buildings are obsolete and in this situation the felling and disposal of trees can be very difficult and extremely costly.

A.6 Although existing trees should be retained wherever reasonable, unless such trees are well suited for incorporating within the new development, it may be preferable to favour new planting. New plantings can then be selected which are ideal for the situation and landscape.

A.7 The tree survey carried out has assessed and given particular attention to:

7.1 the health, vigour and condition of each tree

7.2 the structural defects in each tree and its life expectancy

7.3 the size and form of each tree and its suitability within the context of the site development

7.4 the location of each tree relative to existing site features, e.g. its value as a screen or as a skyline feature

A.8 On the basis of this assessment, trees are divided into one of the following categories:

TABLE 1 BS 5837:2012 TREE CATEGORISATION				
Category and definition	Criteria			Identification on plan
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 U Category 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 the 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.			Red
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria – Subcategories			Identification on plan
	1 Mainly arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	
Category A Trees of high quality with an estimated remaining life expectancy of 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or 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 features and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Green
Category B Trees of moderate quality with an estimated remaining 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 that they are unlikely to be suitable for retention beyond 40 years; or trees lacking the special quality necessary to merit the Category A designation	Trees present in numbers, usually 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	Blue
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young 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 a greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	Grey