

Arboricultural Impact Assessment

rmh

Arboriculture

Client: David Mahoney
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Wavertree Road
Liverpool
L7 3ES

Site: Prescott Gas Works,
Ward Street,
Liverpool.

Ref: TJT06

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Introduction

RMH Arboriculture was instructed by Proven Developments Ltd. (the client) to survey and prepare an Arboricultural Impact Assessment on land to the rear of Ward Street in Prescott, Liverpool.

The survey was completed in April 2019 and followed guidelines as recommended within British Standard **BS 5837:2012**; *Trees in relation to design, demolition and construction – Recommendations*.

Under these recommendations, trees are assessed objectively according to set criteria, a summary of which is noted within Table 1 below with the full table presented at Appendix 1.

Table 1 – Summary of BS5837 tree criteria

Category	Definition
U	Those in such condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
A	Trees of high quality with an estimated remaining life expectancy of at least 40 years.
B	Trees of moderate quality with an estimated life expectancy of at least 20 years.
C	Trees of low quality with an estimated remaining lifespan of at least 10 years, or young trees with a stem diameter below 150mm.

A topographical map was supplied by the client and used to record tree stem locations. The position of any trees not identified on the topographical map will be estimated and are annotated accordingly within the Tree Protection Plan.

Site and surroundings

The site was previously used as a gas distribution station and comprises multiple areas of hard-standing and large above-ground gas pipes towards the central area of the site. The blue line within Image 1 below demarcates the approximate survey boundary.



Image 1 – Location map and survey boundary © Google

There is good vehicular access to the site through gates at the end of both Ward Street and Moss Street and good access to all areas of the site within. Any trees located on third party land will be surveyed as accurately as possible from accessible parts of the site and will be annotated accordingly within the Tree Protection Plan.

The site was surveyed on the 9th April 2019 and weather conditions during the survey were clear and sunny.

Statutory protection

According to Knowsley Council’s ‘My Neighbourhood’ search tool (see Image 2 below) there is no statutory protection noted on the site, the closest being TPO Ref: 02/00011/TPO to the North and Conservation Area Ref: 06/0015/CONS to the South, neither of which impact the site.

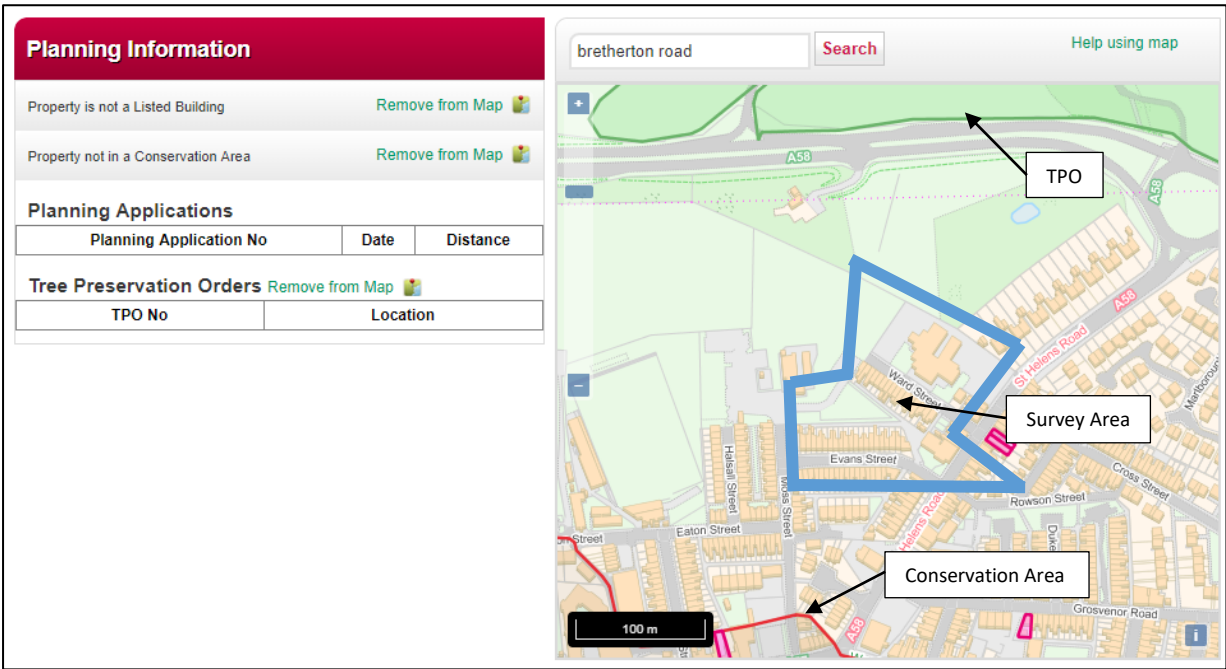


Image 2 – Survey area in the context of statutory protection.

Existing trees

The site comprises a range of existing low-level scrub vegetation with larger individual trees around the perimeter. The largest and highest quality trees are located to the Southern boundary.

A total of 15 individual trees and 3 groups of trees were recorded during the survey. Some individual trees noted on the Topographical Survey have been included within the groups due to their close similarity to surrounding specimens.

Image 3 below shows T1 and T2 (cherry) close to the Southern boundary and proposed access to the site. T1 is growing against, and severely included with, a metal barrier from previous site use and although not currently a Category U tree, is unsuitable for retention given its close proximity to the proposed access and stem condition. T2 is in good condition and is proposed for retention (see Drawing 1, Tree Protection Plan).

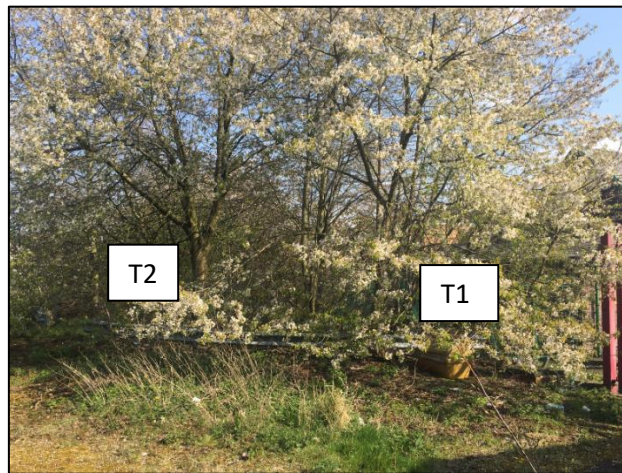


Image 3 – T1, T2 and part of G1

Images 4, 5 and 6 below show trees located further along the Southern boundary. These trees are low value due to their young age and/or poor form generally with some occluded in the surrounding barrier.



Image 4 – Trees within G1



Image 5 – Trees within G1



Image 6 – Trees within G2

Image 7 below is typical of G1 which surrounds the trees individually noted to the Southern boundary and is most dense to the Northern and Western boundaries. Mostly low value trees and shrubs, which vary in form and habit with the exception of T12, which is notable amongst the trees that surround it and in good condition with a balanced crown.



Image 7 – Trees within G1 to the Northern boundary

Image 8 below shows the typical vegetation within the interior of the site and is predominantly low value scrub and a mixture of self-seeded trees and small shrubs.



Image 8 – Trees within the interior of the site

Image 9 below shows T4 (common alder) and T15 (willow). T15 is the largest tree on the site and has a slight lean North towards the interior of the site. Due to the size and location close to a proposed access road it is recommended that the crown of this tree has either a crown reduction or is pollarded.



Image 9 – T14 and T15 to the Southern boundary.

Development proposals

Proposals are for the re-development of land surrounding Prescott Gas Works into residential properties as shown on Drawing 1, Tree Protection Plan.

The proposals include soft and hard landscaping in areas surrounding the existing gas machinery including the creation of landscaped areas of public open space.

Development impact

Table 2 shows a summary of trees, their tree quality categorisation and any actions required as a result of development. Tree quality categories are explained within Appendices 1 and 2.

Type	Category B	Category C
Trees to be retained and protected	T2, T12, T13, T14 and T15	Part of G2
Trees to be removed	n/a	T1, T3-T11, part of G1, G2 and G3

Table 2 – Impact of proposed development – retention and protection

Type	Category B	Category C
Remove ivy to facilitate inspection	T13 and T14	n/a
Crown reduction/pollard	T15	n/a

Table 3 – Impact of proposed development – retained tree works

10 trees (T1 and T2-11) and part of 1 group (G1) and 2 groups of trees (G2 and G3) must be removed to facilitate the development proposals. The trees are located either directly within the footprint of proposed buildings or their root protection area (RPA) would be incurred to such a degree as to make their long term retention unlikely.

1 tree (T15) is recommended for either crown reduction or pollarding due to its large size and the timber properties of *Salix sp.*

Protection and Management

All trees that are to be retained must be protected during re-development and protective fencing, as shown in Drawing 1, must be installed prior to commencement of operations.

Due to barriers to rooting in the form of curb-stones which demarcate existing hard surfaces, particularly to the southern boundary, tree roots are likely to be present and condensed in areas beyond.

During re-development all footfall must, where possible, be kept to existing hard surfacing to minimise compaction surrounding the likely rooting area of retained trees.

Protection and management must be phased in order to minimise any potential damage to trees or their roots during development.

1. Protective fencing must be installed prior to development (see appendix 3)
2. Existing hard-surfaces must be maintained until they are replaced or repaired.
3. All landscaping within the **CEZ** as shown on Drawing 1 must be done sensitively using either hand-tools or light machinery only, working from the stem outwards to avoid compaction of any exposed roots.
4. No heavy machinery should enter the **CEZ** and no materials should be stored within this area.
5. No roots greater than 25mm diameter should be severed without advice from a qualified arboricultural consultant and/or Knowsley Metropolitan Borough Council.
6. Any infilling or back filling should be with a coarse, inert material such as coarse sand, pea gravel or horticultural grit.
7. Soft and hard landscaping surfaces must be pervious and no deeper than the original level of material removed including turf, topsoil and paving.

After re-development and landscaping operations are completed it is recommended, given the size of trees located to the Southern boundary of the site, they be re-surveyed on a minimal of a 3 year cycle by a qualified Arboricultural consultant.

Mitigation

Mitigation for the loss of canopy cover may be required in the form of replacement tree planting. In addition to amenity planting surrounding proposed dwellings, there is adequate space throughout perimeter areas of the site to plant quality specimen trees. These include proposed areas of landscaped public space, which benefit the area aesthetically and to the benefit of wildlife.

Choice of tree species must be suitable for the available space now, and as the tree matures, leaving adequate room for the trees' roots and canopy to extend without significant future management.

Summary

1. 12 category **C** trees, 2 category **C** groups and part of 1 category **C** group must be removed to facilitate the development proposals.
2. Consultation with Knowsley Metropolitan Borough Council confirmed that no statutory protection currently exists within the survey boundary or within influencing distance of it.
3. No trees were found to have features considered suitable for bat habitation and nesting birds were noted throughout the site during the survey.
4. Protective fencing must be installed to demarcate a Construction Exclusion Zone (**CEZ**) prior to re-development operations and remain until landscaping operations commence.
5. Barriers to rooting are present parts of the site, notably curb-stones from existing hard surfacing. Because of this there is likely to be a concentration of rooting beyond these areas.
6. Any works within the **CEZ** of retained trees must be phased as identified in Section 7 'Protection and Management'.
7. Mitigation for the loss of trees is recommended to take the form of replacement planting. This must be in agreement Knowsley Metropolitan Borough Council.
8. Suitable tree species for replacement planting must be selected giving enough space for root and crown extension into maturity with minimal future management.

Drawing 1

Tree Protection Plan

Appendix 1

Tree Quality Criteria

BRITISH STANDARD

BS 5837:2012

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan																					
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 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; see 4.5.7.	See Table 2																					
Trees to be considered for retention																							
<table border="1"> <thead> <tr> <th>1 Mainly arboricultural qualities</th><th>2 Mainly landscape qualities</th><th>3 Mainly cultural values, including conservation</th></tr> </thead> <tbody> <tr> <td colspan="3">Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years</td></tr> <tr> <td>Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</td><td>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</td><td>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</td></tr> <tr> <td colspan="3">Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</td></tr> <tr> <td>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 for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation</td><td>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</td><td>Trees with material conservation or other cultural value</td></tr> <tr> <td colspan="3">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 150 mm</td></tr> <tr> <td>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</td><td>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</td><td>Trees with no material conservation or other cultural value</td></tr> </tbody> </table>			1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	Category A Trees of high quality with an estimated remaining 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 groups or 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 trees or wood-pasture)	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 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 estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm			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
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Appendix 2

Arboricultural Data Sheets

Appendix 3

Protective Fencing