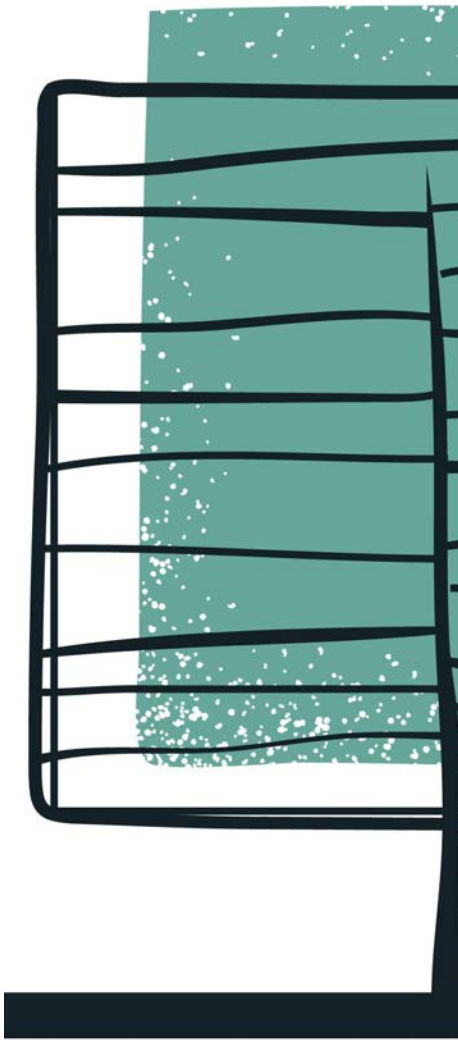

Lally TREE MANAGEMENT

Report No: LTM0055.AIA.01

Date: 13/12/2020

Project: 120a Withington Rd, Manchester. M16 8FA

Client: Dr Ugo Umeadi. 6 Somerdale Avenue, Bolton, BL1 5HS

BS 5837:2012
Arboricultural Impact Assessment

Inspection Record.

Date of Inspection	Surveyor
18/06/2020	Matthew Lally. FdSc MArborA

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Revision	Date	Prepared by	Status
Final	13/12/2020	M. Lally	Complete

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Executive Summary

The proposed development site is located along Withington Road in Whalley Range with multiple shops and residential dwellings adjacent to the land. The land itself is a small area of mainly hardstanding and is currently disused.

Trees present that could be potentially affected by the development are as follows:

Category A	Category B	Category C	Category U
0	3 Trees	1 Tree	1 Tree

It is proposed to construct a lightweight building on piled foundations to be used as a private medical facility, the construction of the building will be accompanied by associated parking, hardstanding areas and soft landscaping. To facilitate this development, trees requiring pruning, removal or other works to retain the trees are as follows:

	Tree Category. Trees Requiring Works			
Tree Work Type	**Category A**	**Category B**	**Category C**	**Category U**
Tree Removal	0	0	0	1 Tree
Pruning Works	0	0	0	0
Piled Foundations	0	3	1	0
Cellular Confinement System	0	3	1	0

1.0 Introduction

1.0.1 The author of this report is Matthew Lally (MAborA) FdSc. Matthew is a professional member of the Arboricultural Association, The Consulting Arborist Society and an Associate member of the Institute of Chartered Foresters and is therefore required to uphold ethical standards laid out by these institutions.

1.0.2 This Arboricultural Impact Assessment has been commissioned by Dr Ugo Umeadi of 6 Somerdale Avenue, Bolton, BL1 5HS and is prepared in relation to the proposed development at 120a Withington Rd, Manchester, M16 8FA.

An outline of the site boundary can be found in figure 1.

Figure 1. Assessment Boundary Plan

1.0.3 The tree survey & assessment of existing trees has been guided by the recommendations within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'. The recommendations set out a structured assessment methodology to assist in determining which trees would be deemed either as being suitable or unsuitable for retention.

1.0.4 British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' includes guidance for considering the relationship between existing trees and how to integrate their needs into a successful development. A harmonious and sustainable relationship between any retained trees and new structure and/or hard surfaces is at the heart of the guidance.

1.0.5 The survey was carried out on 18/06/2020 by means of inspection from ground level by an experienced and qualified arboriculturalist. The inspection can be restricted in cases where trees were Ivy clad or surrounded by dense vegetation.

1.0.6 Due to the size and nature of the site, it was decided that the survey methodology would include broadly grouping trees that share very similar characteristics. This method is in line with point 4.2.4 of BS 5837:2012 that states 'Trees forming groups should be identified and considered as groups where the arboriculturist determines that this is appropriate. It may be appropriate to assess the quality and value of trees as a whole, rather than individuals.'

1.0.7 British Standard 5837:2012 recommends the assessment of trees is made as objectively as possible, but the findings will always remain the opinions of the surveyor. The tree categorisation method identifies the quality and value of the existing tree stock, allowing informed decisions to be made concerning development design layout.

1.0.8 Table 1 provides a summary of the documents that have been made available by the client:

Table 1 – Documents made available by client.

Document Type	Reference No.	Author	Date
Existing	Withington Rd. dwg	-	-
Proposal	May Road Clinic. dwg	-	-

1.0.9 The supplied drawing did not include tree positions. Plotted trees have been placed by eye and any dimensions regarding tree positions in relation to the proposals and protective fencing must be checked on site.

1.0.10 Weather conditions during the survey were dry and still.

1.0.11 Assessing the potential influence of trees upon load bearing soils, beneath existing and proposed structures resulting from water abstraction by trees or rehydration of shrinkable soils was not included in the contract brief and is therefore not considered in the report. The consultant cannot be held responsible for damage arising from such action.

1.0.12 Potentially hazardous trees are highlighted, and appropriate recommendations are made. However, this report is not a substitute for a full tree risk assessment or management plan which are specifically designed to minimise risk and liability associated with responsibility for trees.

2.0 Planning Policy.

2.1 National Planning Policy Framework (NPPF)

2.1.1 When determining planning applications, Local Planning Authority's (LPA) should apply the following principles:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating an alternate site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.
- Developments resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons, and a suitable compensation strategy exists.
- Developments whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity (paragraph 175).

2.1.2. The trees proposed for removal within this report is neither considered aged or veteran and therefore the principles for refusal within the NPPF would not be considered applicable.

2.2 Local Planning policy - Guide to Development in Manchester Supplementary Planning Document and Planning Guidance - Biodiversity

2.2.1 UDP Part 1 Policies E2.3 and E2.4 require the protection of wildlife, wildlife habitats, and where possible, the creation of new nature reserves and features which will sustain wildlife.

2.2.2 Part 1 Policy E2.6 states that the City Council wishes to prevent the loss of existing trees. Developers will need to contribute to Manchester's Biodiversity Strategy by demonstrating in their Environment Standards Statement how they have taken full account of the effect of their proposed development on biodiversity. This should highlight how existing species and habitats would be protected and how the proposed development would enhance the ecological value of the site. Mature trees and hedges should be retained on site wherever possible.

2.2.3 Where this is not possible, developers will be expected to agree an appropriate scheme for replanting with the Development Control case officers. Developments should result in no net loss in overall biodiversity value and maximise opportunities to meet and exceed our target to achieve a 10% net increase in tree cover across new developments

3.0 Legislation

Statutory Considerations

3.0.1 A Tree Preservation Order (TPO) is an order made by a local planning authority to protect specific trees, groups of trees or woodlands in the interests of amenity. A TPO prohibits the:

- cutting down
- topping
- lopping
- uprooting
- willful damage
- willful destruction

of trees without the local planning authority's written consent. If consent is given, it can be subject to conditions which have to be followed. In the Secretary of State's view, cutting roots is also a prohibited activity and requires the authority's consent. Anyone found guilty of such an offence is liable and in serious cases, may result in prosecution and incur an unlimited fine.

3.0.2 Following consultation with the Local Planning Authority, Manchester City Council, it is understood that the site is within the Whalley Range Conservation Area 1992 and therefore consent from Manchester City Council must be sought before any works are undertaken.

3.0.3 Felling Licence

3.0.4 Tree felling is also restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence for "Felling trees immediately required for the purpose of carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) ..."

3.0.5 If full planning permission is granted, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

4.0 Survey Methodology

4.0.1 The trees were surveyed in accordance with Chapter 4 of BS5837:2012. The tree metrics have been recorded in the tree schedule in appendix one. Where groups of trees and woodland groups have been recorded, average height, average crown spread and average diameter at breast height (DBH) are reported. Where access to the base of any trees was limited then measurements were estimated.

4.0.2 Trees have been assessed as individual trees (T), groups of trees (G), hedgerows (H) or woodland Groups (W) where it has been determined appropriate.

- The term group has been applied where trees form cohesive arboricultural features either aerodynamically, visually or culturally.
- For the purposes of this assessment, a hedgerow is described as any boundary line of trees or shrubs less than 5m wide at the base and are managed or have been managed under a regular pruning regime.
- For the purposes of this assessment, woodland is described as a habitat where 'trees are the dominant plant form. The individual tree canopies generally overlap and interlink, often forming a more or less continuous canopy'.

4.0.3 All the trees were assessed using: a grading A to C (retention) and U (removal); condition and age class as defined in appendix two.

4.0.4 Where appropriate, canopy spread for each tree was recorded at four cardinal points in order to reproduce an accurate representation of the crown shape of the tree on the tree plan in appendix four.

4.0.5 The survey included all trees within the proposal area and trees near to the proposal.

Veteran and Ancient Trees

4.0.6 Veteran Trees and Ancient Woodland are important components of the landscape. Their importance can be for a number of reasons including that of their ecological, social, cultural, and historic value.

4.0.7 Veteran Trees and Ancient Woodlands are material considerations within the planning process and their importance is specifically recognised within the National Planning Policy Framework (NPPF) 2019

4.0.8 Ancient Tree Guide No4 Published by the Woodland Trust and the Ancient Tree Forum states that:

'*An ancient tree is one that has passed beyond maturity and is old, or aged, in comparison with other trees of the same species. Its canopy may be small. It will probably have a very wide trunk relative to other trees of the same species and it is very likely that it will be hollow*'

AND

'*Veteran is a term describing a tree with habitat features such as wounds or decay. The terms ancient and veteran have been used interchangeably in the past, however, it is important to know what the differences between them [are]. A veteran tree is a survivor that has developed some of the features found on an ancient tree, not necessarily as a consequence of time, but of its life or environment. Ancient veterans are ancient trees, not all veterans are old enough to be ancient. A veteran may be a young tree with a relatively small girth in contrast to an ancient tree but bearing the 'scars' of age such as decay in the trunk, branches or roots, fungal fruiting bodies, or dead wood. These veteran features will still provide wildlife habitat*'

4.0.9 Different methodologies are available for the defining of Veteran & Ancient trees in the field. Lally Tree Management use RAVEN (Recognition of Ancient, Veteran and Notable Trees) allowing quick and easy assessments to be made, whilst trying to ensure these valuable assets to our environment do not go un-noticed.

4.0.10 **No Veteran Trees or Ancient Trees were identified on this site.**

5.0 Development Proposals

5.0.1 Overlaying the development plans & their associated infrastructure over the existing site plans has highlighted a number of areas where trees are in conflict with the proposal. This plan has been made available in appendix four and given the title 'Arboricultural Implications Plan'

5.0.2 In order to fully assess the impact of the proposals an Impact Table has been created detailing each tree, which shows the proximity of the associated works to the tree.

5.0.3 The aforementioned data and plans are analysed to determine whether the development will have a detrimental impact on the health of each tree. Once this has been determined, remedial measures can be detailed to reduce the impact the proposals will have on the treescape.

5.0.4 Impact Table: -

Tree No.	Root Protection Area identified (m^2) in Table 2 of BS 5837:2012	Distance to Proposed New Hard Standing (m)	Distance to Proposed Development (m)	Can the Tree/s be Successfully Retained	Retention Category
T1	235m2	-	2.00	Yes, as outlined in section 7.2, 7.3, 7.4, 7.5	B
T2	41m2	-	-	Fell due to condition	U
T3	152m2	-	3.85	Yes, as outlined in section 7.2, 7.3, 7.4, 7.5	C
T4	109m2	-	3.70	Yes, as outlined in section 7.2, 7.3, 7.4, 7.5	B
T5	191m2	-	4.60	Yes, as outlined in section 7.2, 7.3, 7.4, 7.5	B

6.0 Impact Assessment

6.1 To assess the implications of the Impact Table each tree can be categorised in the following way: -

	Trees to be Retained		Trees to be Removed	
	With No Impact	With detailed construction	Due to Condition	Due to Development
Category A	-	-	-	-
Category B	-	T1, T4, T5	-	-
Category C	-	T3	-	-
Category U	-	-	T2	-
TOTAL	0	4	1	0

7.0 Mitigation Proposals

7.1 Compensatory Planting

7.1.1 Due to the loss of the trees identified in section 6.1 it is proposed that along with the general soft landscaping for the development, more substantial supplementary tree planting will support the application.

7.1.2 This will have a number of benefits for the development and the character of the area. These being: -

- Give a greater diversity of age class on the site, increasing sustainability.
- Give a greater diversity of species and therefore wildlife habitat.
- As the trees proposed for removal are to the rear of the site some of the replacement planting will be situated to the front of the development. Therefore, the tree cover and amenity value in the locality will increase.

7.1.3 The trees proposed are listed in the schedule below: -

Tree Species	Tree Size
Malus tschonoskii	12-14 cm girth
Crataegus persimilis 'Prunifolia'	12-14 cm girth

7.1.4 The extent of mitigation planting required will need to be confirmed in agreement with the Local Planning Authority once the development proposal is finalised. Requirements usually involve replacement of trees on a one for one basis. This is based on tree sizes of 12-14cm girth.

7.2 Construction of hardstanding within RPA

7.2.1 As shown above, the Impact Table raises concern of the proximity of the hardstanding areas to T1, T3 T4 & T5 and the effect the proposals would have on the Safe Useful Life Expectancy of the trees.

7.2.2 Section 7.5.3 of BS 5837:2012 advises that where **new** hardstanding is to be formed within the RPA it should not exceed 20% of any existing unsurfaced ground. It should be noted however, that this site already has a compacted hardstanding surface in which water infiltration and gas exchange will be limited and therefore the 20% advisory rule will not be applicable in this circumstance.

7.2.5 It is proposed, however, to increase permeability of the ground where the proposed paths & car parking will be located by uplifting the existing non-permeable surface and replacing this with a cellular confinement system. The areas not being used for paths & for parking or for the construction of the proposed building will also have the hard standing lifted. These areas will be formed into formal garden spaces again increasing permeability for water and gas exchange.

7.2.6 The proposed cellular confinement system will provide a load transfer mattress which prevents direct loads on tree roots and reduces the bearing pressure on subsoil's by stabilising aggregate surfaces against rutting under wheel loads.

7.2.7 A proposed methodology and cross-sectional diagram for the construction of the access way can be found in appendix five of this report. Should this be used for the construction of the hardstanding areas of this site, then the proposals should not have a detrimental effect on the trees and will likely make for a more favourable rooting environment than what already exists.

7.3 Piled Foundations

7.3.1 As shown above, the Impact Table raises concern of the proximity of the development to T1, T3, T4, & T5 and the effect the proposals would have on the Safe Useful Life Expectancy of the tree.

7.3.2 This impact can be reduced should the following design principal be implemented: -

7.3.3 The construction of the building should have a designed foundation to reduce the amount of excavation required for its construction. This can be achieved by constructing the extension with a pile and beam foundation, where the beams are laid above ground level. A void under the building will allow for increased gas exchange and will therefore provide a better rooting environment than what already exists. This void will also allow utilities to run underneath the building but above the ground preventing any need for excavation.

7.3.4 If the above foundation is implemented and in general the ground levels remain the same the only detrimental effect the proposals would have on this tree would be slight root severance in localised areas.

7.3.5 Where piling is to be installed near to trees, the smallest practical pile diameter should be used, as this reduces the possibility of striking major tree root and reduces the size of the rig required to sink the piles.

7.3.6 Use of the smallest practical piling rig for the proposed piling will be used to reduce pressure on the soil and also to prevent the need for access facilitation pruning.

7.3.7 The pile type should be selected bearing in mind the need to protect the soil and adjacent roots from the potentially toxic effects of uncured concrete, e.g. sleeved bored pile or screw pile.

7.3.8 A proposed piling plan from Rhino Piling Limited has been made available in appendix six.

7.4 Installation of Utilities

7.4.1 The installation of the proposed utilities will occur between T2 and T1 from May Road. It is proposed to install all the utilities in this location to minimise the excavation required. The utilities will be terminated at the corner of the proposed building and from this point all the utilities will run under the proposed building and above the ground, this will be possible as the building will be on piled foundations and will have an air void below the building to ensure good levels of gas exchange between the soil and the air.

7.4.2 The excavation will be undertaken in line with NJUG Volume 4. 'Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees' Excavation using the methodology outlined in NJUG Vol.4 will not affect the safe useful life of the aforementioned trees.

7.4.3 Copies of the utility plans showing the current locations of the utilities in relation to the site have been made available in appendix seven.

7.5 Boundary Fence Construction

7.5.1 As shown above, the Impact Table raises concern of the proximity of the developments proposed new boundary fence to T1, T3, T4, & T5 and the effect the proposals would have on the Safe Useful Life Expectancy of the trees.

7.5.2 To mitigate any adverse effects of the installation of this fence the following precautions and guidelines should be adhered to:

- A fence design that allows for varying distances between fence posts will be selected
- Each fence post will have trial holes dug by hand to ensure that no major roots are severed, Existing fence post of fence post holes should be utilised where possible.
- If major roots are found during the digging of the trial holes, then the fence post will not be placed in this hole and the trial hole will be backfilled.
- Posts will be placed at least 0.5 metres from any stems
- Panels will be no closer than 300mm to a stem to allow for yearly incremental growth

7.5.3 If the above measures are adhered to then the installation of the fence will not adversely affect the Safe Useful Life Expectancy of the trees.

7.6 Access Facilitation Pruning.

7.6.1 To help facilitate the development T3 should be crown lifted to 4m. T4 & T5 Should be crown lifted to 5m.

7.6.2 Additional pruning works have been recommended during the site survey for safety reasons. These include a 20% reduction of T1 and removal of major deadwood. T2 should be removed as this tree is dead. T3 Should be crown lifted to 4m due to low branches over the road and deadwood should be removed. T4 and T5 should be crown lifted to 5m due to low branches over the path and road. Major deadwood should also be removed.

7.6.3 If all pruning works are undertaken in line with British Standard 3998:2010 Tree Work – Recommendations then the Safe Useful Life Expectancy of the trees will not be adversely affected.

8.0 Caveats and Limitations

8.1 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

8.2 This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering, soils ecological or archaeological data. If either is commented upon within the report further professional advice should be sought.

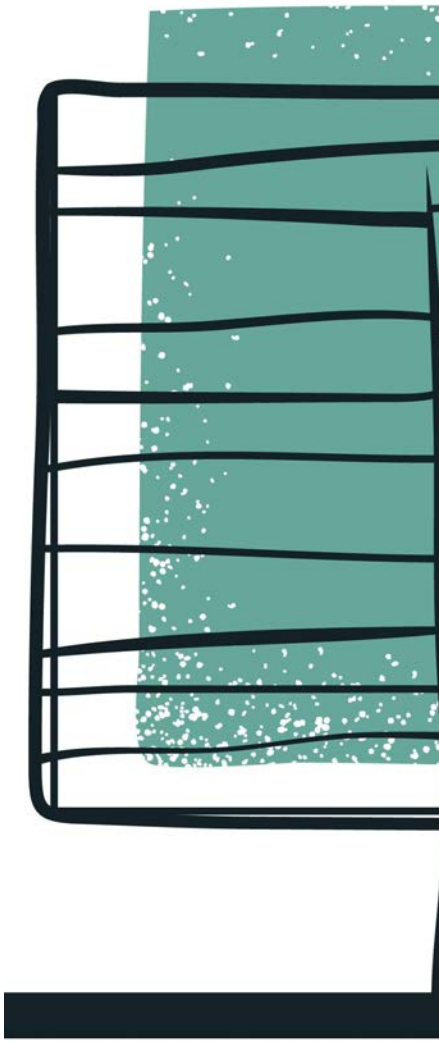
8.3 This is not a Tree Risk Assessment. As such this report should not be taken to mean or imply that any of the inspected trees should be considered safe. A Tree Risk Assessment can be provided but would be subject to additional survey requirement and further fees.

8.4 Trees are growing dynamic structures. Whilst reasonable effort has been made to identify defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. No tree is ever absolutely safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.

8.5 For the purposes of this survey all dimensions of trees and their associated parts are based on estimation unless otherwise stated.

8.6 Trees are living organisms whose health, condition and structure can change quickly and without warning. Therefore, the contents of this report are valid for a period of one year from the date of this survey.

Appendix One. Tree Survey Data



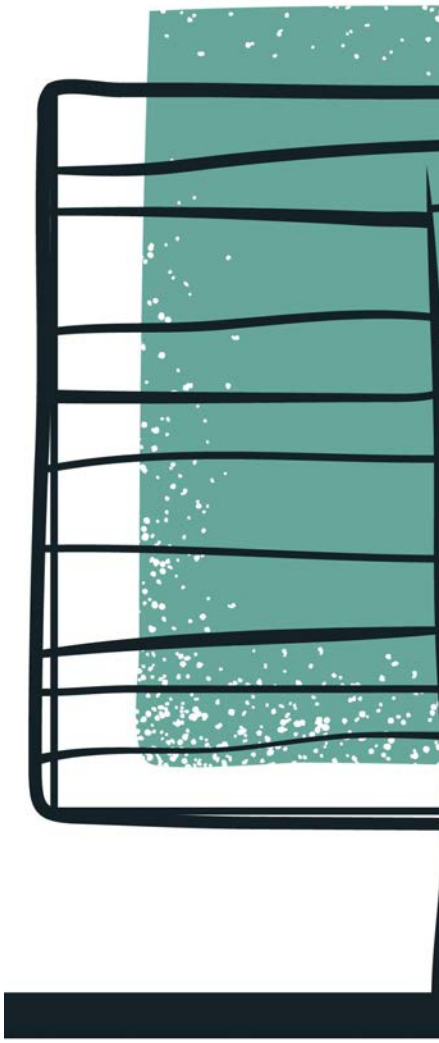
BS5837:2012
TREE SCHEDULE

DATE OF SURVEY: 18/06/2020 **JOB REFERENCE:** IDV0055.AIA.01 **SITE ADDRESS:** 120a Withington Rd

Tree No.	Species	Stem Dia (mm)	RPA (m^2)	RPA Radius (m)	Height (m)	Age Class	Crown Spread (m) N	E	S	W	Crown Clearance (m)	Condition	Comments	Recommendations	Remaining Contribution	BS5837 Retention Category
T1	Ash	720	235	8.64	18	M	8	6	8	8	8N	B	A tree of average forma and good vigour located on site boundary adjacent to alley way. Trees is Highly Visible from public viewpoints. Limited inspection due to Ivy on stem. Overextended limbs present. Minor deadwood present	**Reduce crown by 20%. Remove major deadwood. Sever Ivy**	20+	**B1**
T2	Thorn	300	41	3.6	9	M	4	4	4	4	3.5W	D	A dead standing tree located on site boundary adjacent to May Rd. Branches leaning over footpath.	**Fell to ground**	-	**U**
T3	Ash	580	152	6.96	14	M	4	4	8	7	2.5W	Condition	A tree with reduced vigour located on site boundary adjacent to May Rd. Large pruning wounds on main stem with only minor occlusion and significant levels of decay. Possible column of decay in main stem. Early stages of die back in upper and mid crown possibly caused by Ash Die Back. Tree is Highly Visible from public viewpoints. Low branches over footpath.	**Crown lift to 4m. Remove major deadwood. Monitor annually**	10+	**C1**
T4	Lime	490	109	5.88	16	M	5	3	4	4	0N	B	A tree of good form and vigour located on site boundary adjacent to May Rd. Dense epicormic growths at base prevented a detailed inspection. Low branches present.	**Crown lift to 5m. Remove major deadwood**	40+	**B1**
T5	Lime	650	191	7.8	16	M	5	5	4	3	0N	B	A tree of good form and vigour located on site boundary adjacent to May Rd. Low branches present.	**Crown lift to 5m. Remove major deadwood**	40+	**B1**

* = Average measurement ~ = Estmated measurement # = Position estimated on site

Appendix Two. Glossary of Terms



The following terms are concurrent with best Arboricultural practice and within the guidelines set by the International Society of Arboriculture (ISA), the Arboricultural Association (AA) and the British Standards Institute (BSI).

Age Range:

Age is site specific and categorised:

Young (Y)		Out-planted trees that have not yet established.
Semi-Mature	**(SM)**	Established trees up to 1/3 of expected height and crown.
Early Mature	**(EM)**	Between 1/3 and 2/3 of expected height and crown.
Mature	**(M)**	Between 2/3 and full expected height and crown.
Fully Mature	**(FM)**	Full expected height and crown.
Over Mature	**(OM)**	Crown beginning to break-up and decrease in size.
Senescent	**(S)**	Crown in advanced stage of break-up.

Height: Height is estimated and recorded in metres.

DBH: Diameter at Breast Height is measured at 1.5m and recorded in metres. Where a tree becomes multi-stemmed below 1.5m the highest possible diameter is measured and indicated. Alternatively, above 1.5m the diameter of each stem or an average diameter is measured and indicated.

Condition: Assessment of current physiological condition and structural morphology incorporating vigour and vitality and categorised:

A - Tree needing little, if any attention

B - Tree with minor, but rectifiable defects, or in the early stages of physiological stress

C - Tree with significant structural and physiological flaws and/or extremely stressed

D - Tree that is dead, biologically/physically moribund or dangerous

Desirability to Retain – As Outlined in Table 1 of BS 5837:2005 (Trees in Relation to Construction - Recommendations)

Definition of Physiological & Morphological Terms

Adaptive Growth - The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone.

Bifurcation – Forked or divided union.

Brown Rot - Form of decay where cellulose is degraded, while lignin is only modified.

Cankers- A localised area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterised by wound wood development on the periphery. This may be annual or perennial.

Cavity - An open wound, characterised by the presence of extensive decay and resulting in a hollow.

Chlorotic Leaf - Lacking in chlorophyll, typically yellow in colour.

Compartmentalisation - The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.

Crack - Longitudinal spilt in stem or branch, involving bark and/or underlying wood. These may be vertically and horizontally orientated.

Decay - Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.

Deadwood - Deadwood is often present within the crown or on the stems of trees. In some instances, is may be an indication of ill health, however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc.).

End Weight - The concentration of foliage at the distal ends of stems and deficient in secondary branches.

Girdling Root - Root which circles and constricts the stem or roots causing death of phloem and/or cambial tissue.

Hazard Beam - An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).

Included Bark Union - Pattern of development at branch junctions where bark is turned inward rather than pushed out. Potential weakness due to a lack of a woody union.

Ivy Growth - Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland areas as a conservation benefit.

Live Crown Ratio - The relative proportion of photosynthetic mass (leaf area) to overall tree height.

Reaction Wood - Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.

Root Plate Lift - The physical movement of the rooting plate causing soils to shift and crack. May occur during adverse weather conditions. Trees may become unstable.

Structural Defect - Internal or external points of weakness, which reduce the stability of the tree.

Suppressed - Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.

Topping - A highly disfiguring practise, likely to cause severe xylem dysfunction and decay in major structural parts of the wood.

White Rot - Form of decay where both cellulose and lignin are degraded.

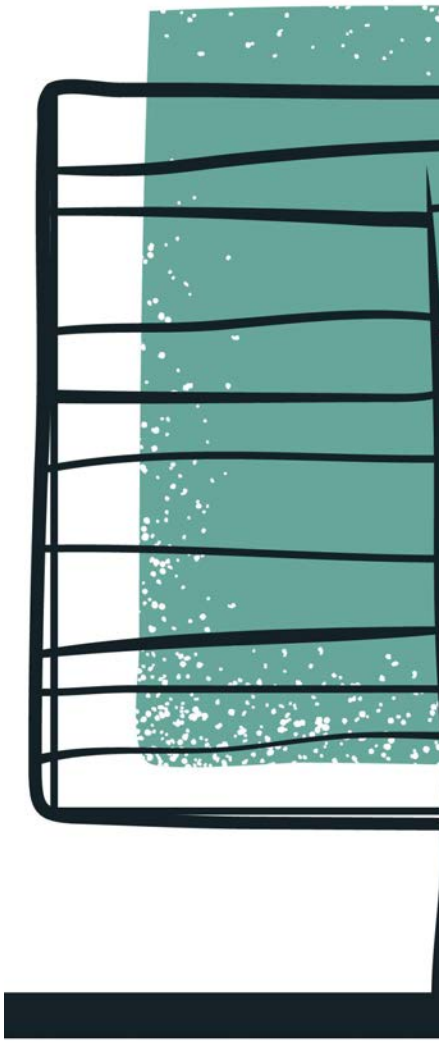
Wound - Any injury, which induces a compartmentalisation response.

Wound wood - Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term “callus.”

Woodland Structure - The vertical and horizontal arrangement of trees within a group or woodland i.e. Dominant - trees with a crown above the upper layer of the canopy, Co-dominant - trees that define the general upper edge of the canopy, Intermediate - trees that have been largely overgrown by others, Suppressed - trees that have been overgrown and occupy an under storey position and grow slowly, often severely asymmetrical.

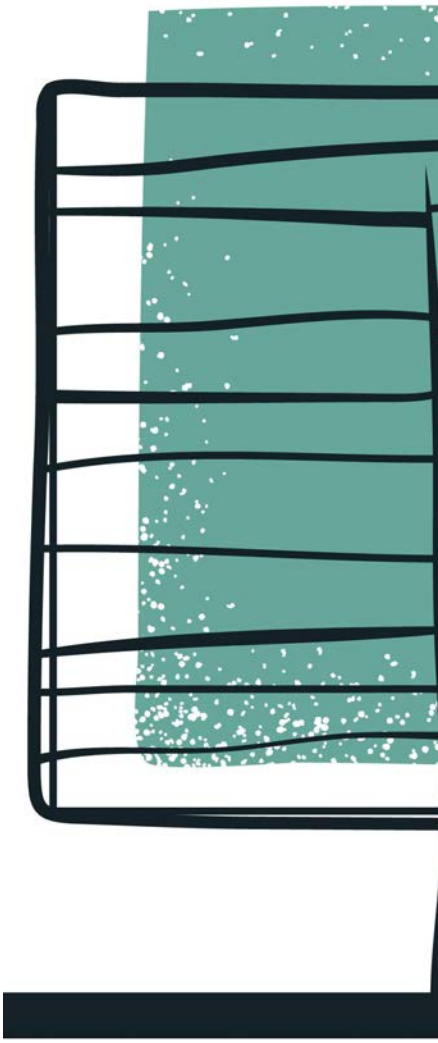
Note*: The definitions described above, may not necessarily be included within the Arboricultural Survey Data.*

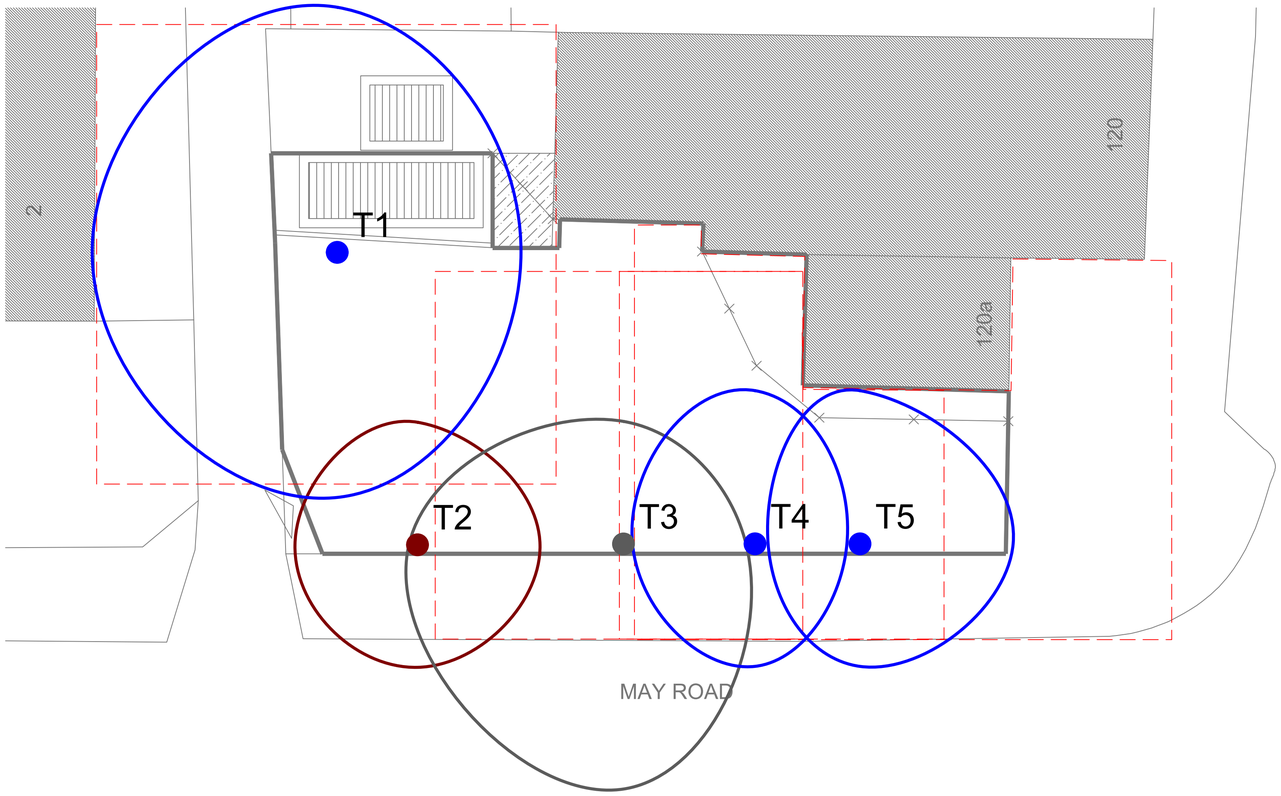
Appendix Three. Cascade Chart



Trees for removal			
Category and definition	**Criteria**		
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	o 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 (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) o Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. o Trees infected with pathogens of significance to the health and/or safety of other trees nearby) e.g. Dutch elm disease), or very low-quality trees suppressing adjacent trees of better quality. NOTE: *Category U trees can have existing or potential conservation value which might be desirable to preserve; see section 4.7.5*		
Trees to be considered for retention			
Category and definition	**Criteria and sub-categories**		
	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 at least 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 and or landscape features	Trees, groups or woodlands of significant conservation, historical commemorative or other value (e.g. veteran trees or wood-pastures)
Category B **Those 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 area	Trees with clearly identifiable conservation or other cultural benefits
Category C **Those 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 the higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with no material conservation or other cultural value

Appendix Four. Plans





Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is for use on this site only and should be used in conjunction with all relevant consultants drawings..

LEGEND

N

- Category A
- Category B
- Category C
- Category U
- Root Protection Area (RPA)

Lally TREE MANAGEMENT

Scale: 1:100 @ A1	Date: 18.06.20

Job: **LTM0055. 120a Withington Rd**

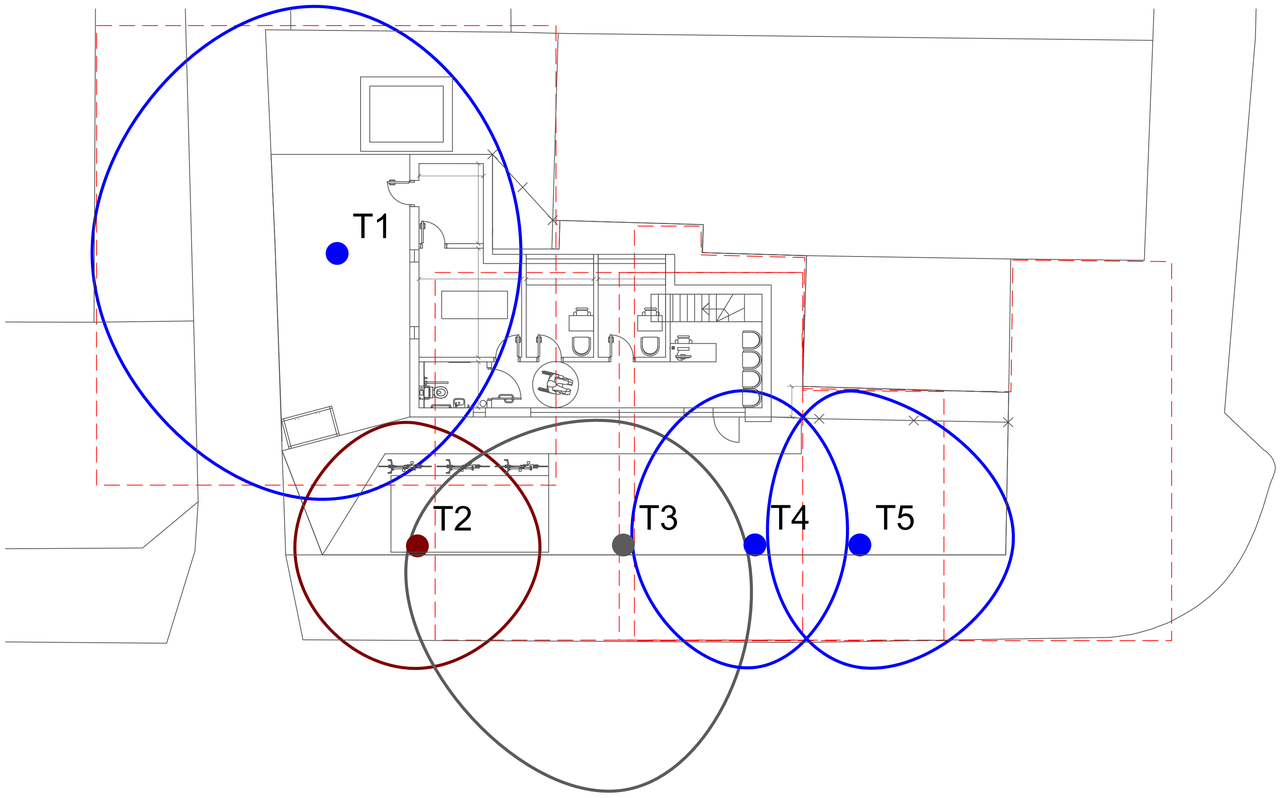
Address: **120a Withington Rd, Manchester. M16 8FA**

Client: **Dr Ugo Umeadi**
6 Somerdale Ave.Whalley Range

Drawing Number: **LTM. 00055. TCP. 01**

Drawn by: **Matthew Lally**

TREE CONSTRAINTS PLAN



Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is for use on this site only and should be used in conjunction with all relevant consultants drawings..

LEGEND

N

- Category A
- Category B
- Category C
- Category U
- Root Protection Area (RPA)

Lally TREE MANAGEMENT

Scale: 1:100 @ A1	Date: 20/11/2020

Job: LTM0055. 120a Withington Rd

Address: 120a Withington Rd, Manchester. M16 8FA

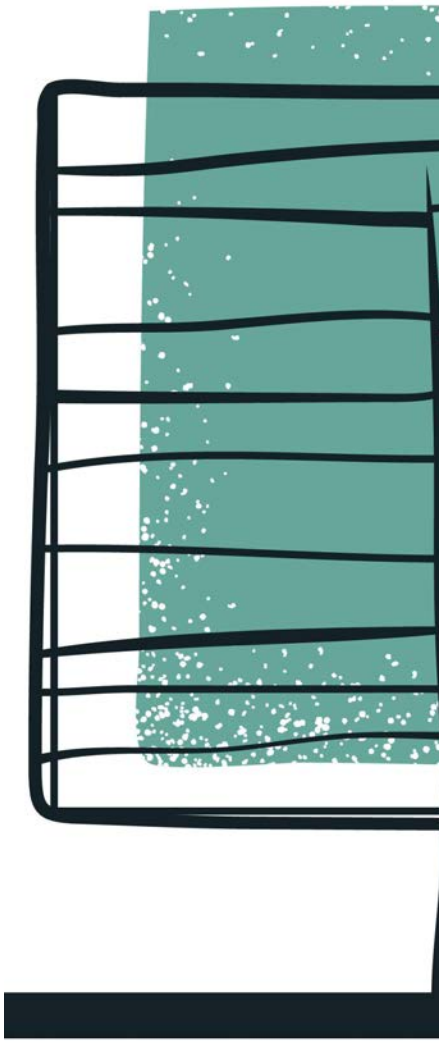
Client: Dr Ugo Umeadi
6 Somerdale Ave.Whalley Range

Drawing Number: LTM. 00055. AIP.01

Drawn by: MatthewLally

Arboricultural Implications Plan

Appendix Five. Special Surfaces



METHODOLOGY FOR THE CONSTRUCTION OF CAR PARKING

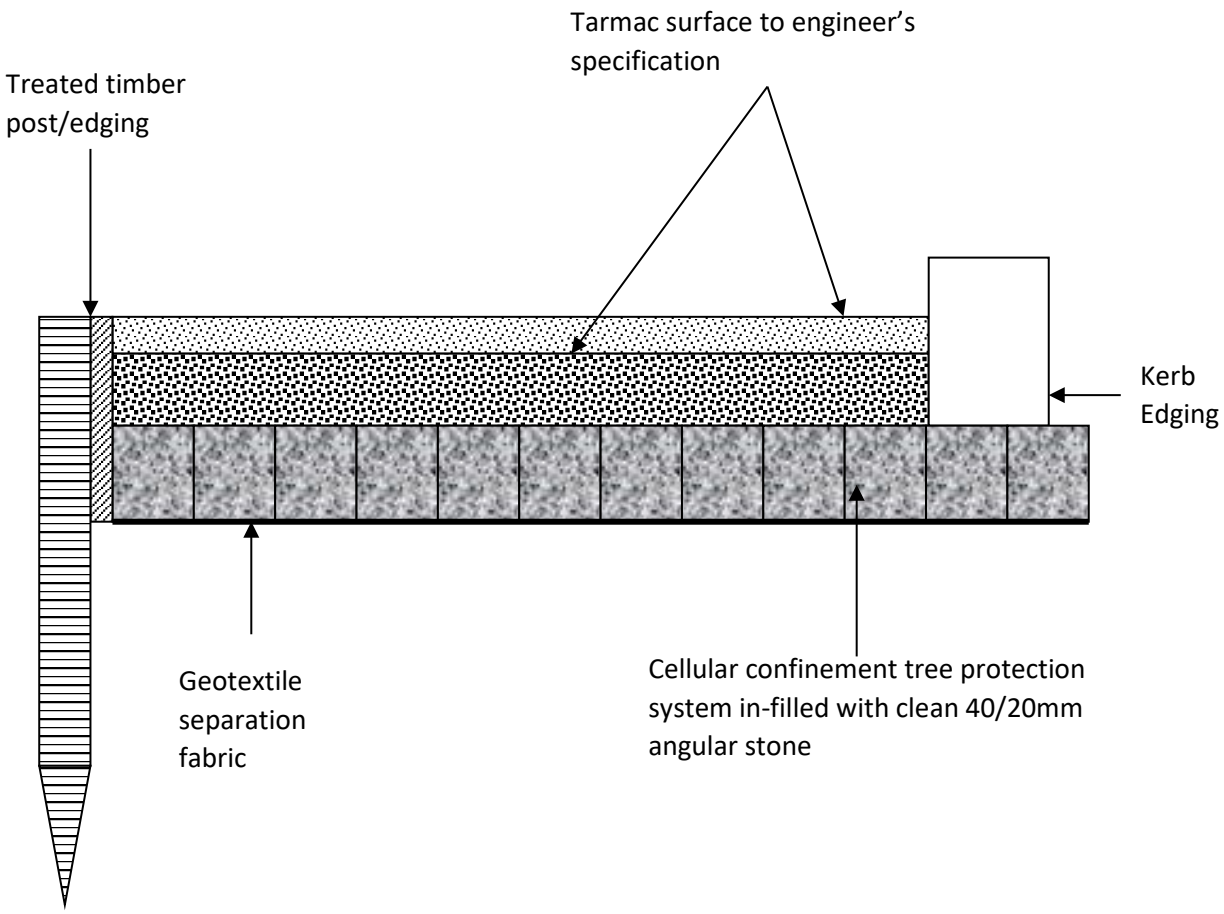
The following methodology supports the drawing indicating the construction of the proposed hardstanding areas. The methodology is prepared on the basis of the sequence of operations necessary to complete the construction of the hardstanding areas with the minimum damage to the trees proposed for retention.

- Surface layer to be scraped off. This can be done either by hand or by very small machinery.
- Erect protective fencing to the edge of the construction area.
- Spread a sub grade material over the length of the hardstanding to fill any small ruts.
- Construct edging using treated timber if required.
- Lay geotextile mat over smoothed area.
- Extend the Geoweb perforated tree root protection system over the area of the hardstanding with sufficient overlap such that kerbs can be constructed on top of the Geoweb.
- Fill the voids within the Geoweb with reduced fines Type 1 material working into the site over the top of the Geoweb.
- Lay kerbs and surface over the Geoweb such that the construction binds itself together.
- Construct finished surface as required in line with guidance illustrations below.

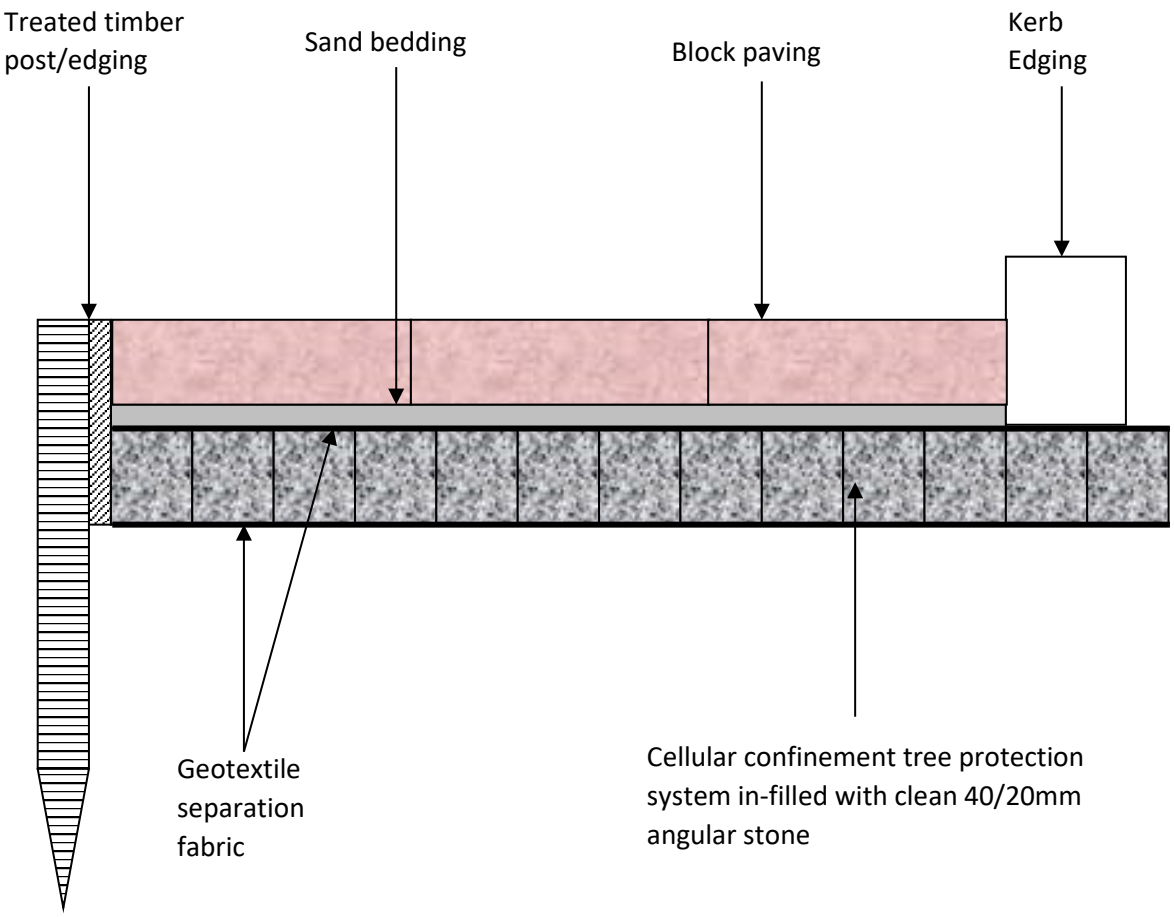
GEOWEB BASED CONSTRUCTION – (INDICATIVE ONLY)

Depth of confinement system variable according to use- refer to manufacturer

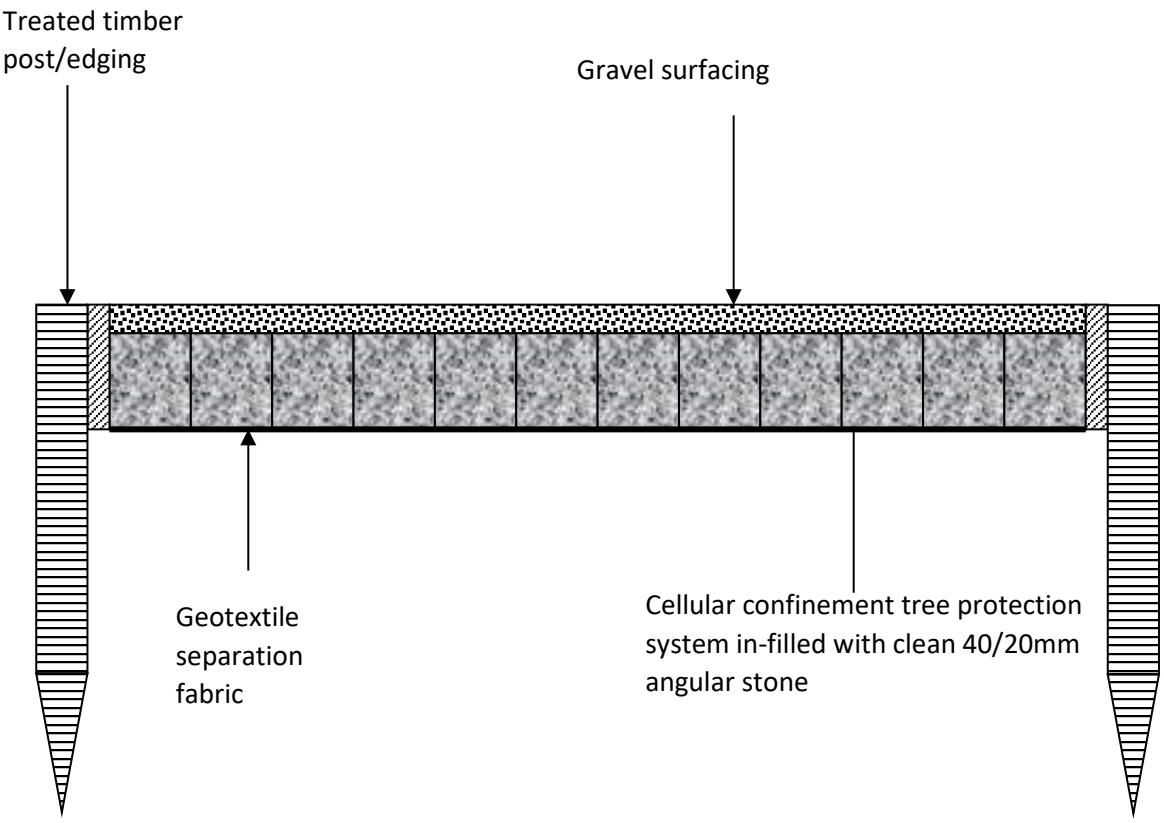
Tarmac Surface



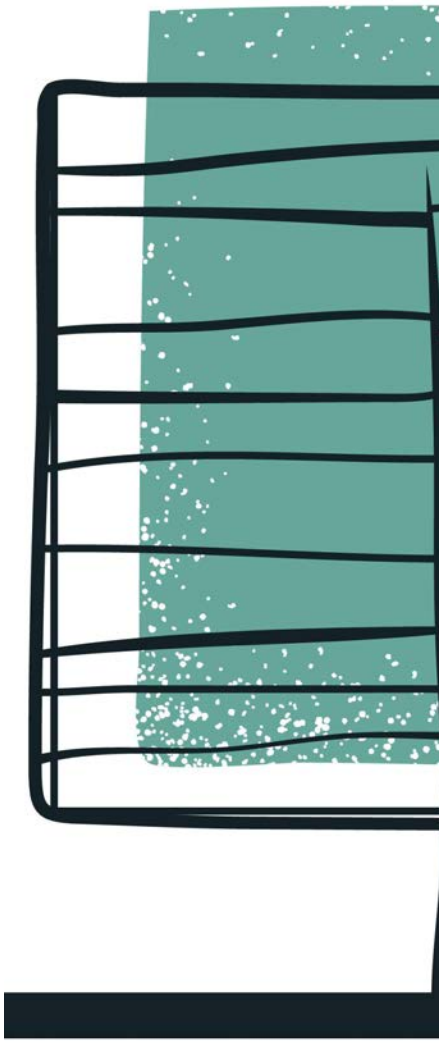
Block Paved Surface



Gravel Surface

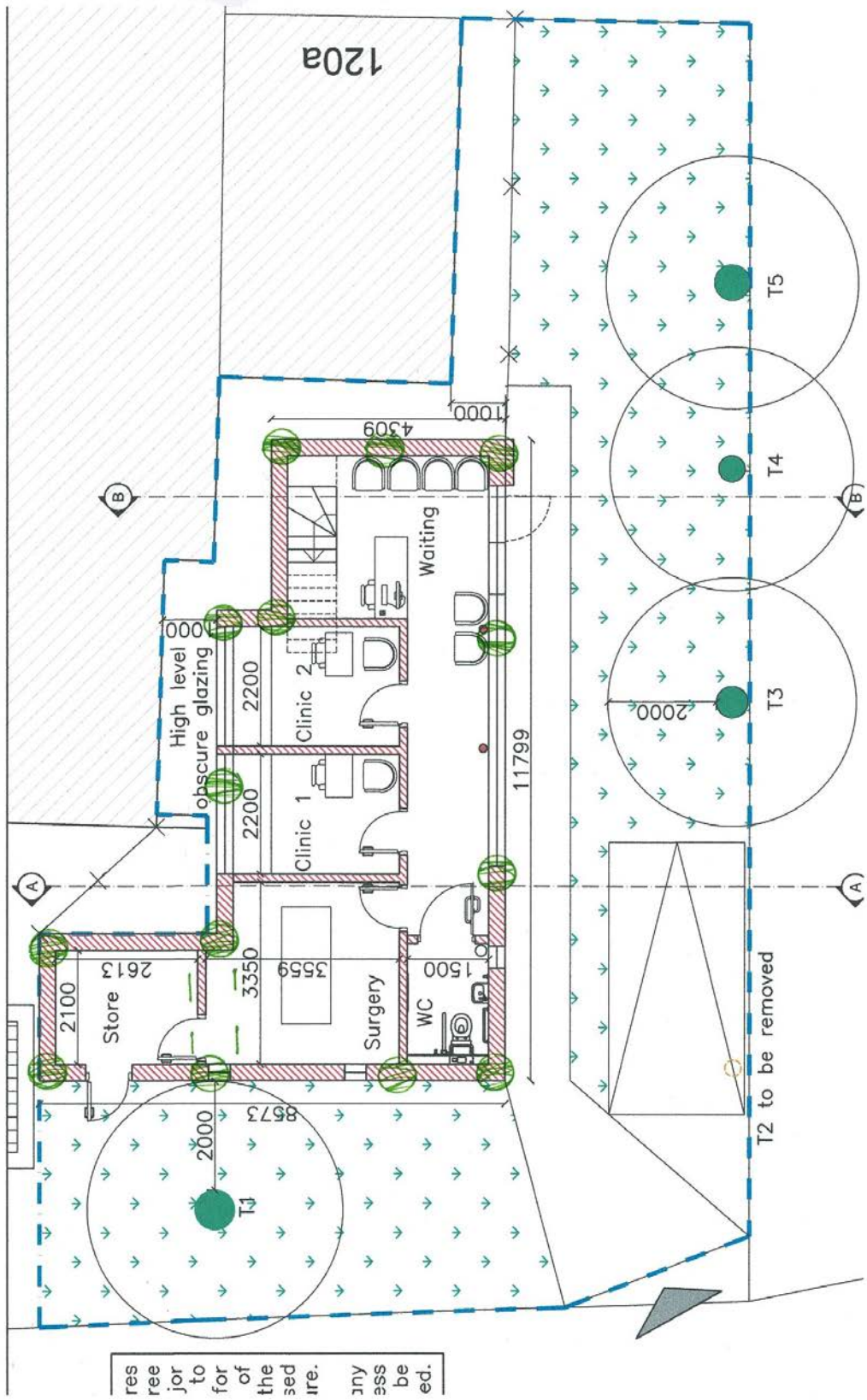


Appendix Six. Pile and Beam Foundations



Estimate valid for 28 days

Below is the layout we have based our estimate on, this is subject to an engineers design and therefore the estimate may change once designed by a structural engineer.



Telephone: 0161 706 0365
E-mail: enquiries@rhinopiling.co.uk
Website: www.rhinopiling.co.uk

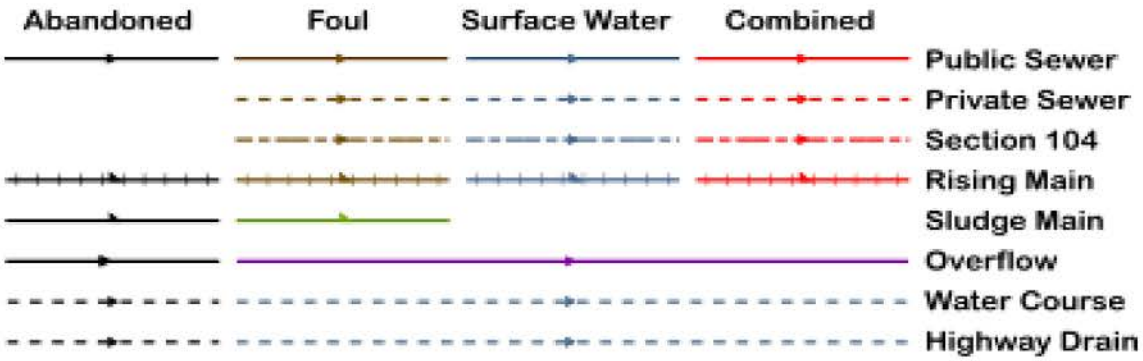
VAT Number 293203023
Registered in England Number 11257840

Estimate subject to our Terms & Conditions

Appendix Seven. Utility Plans

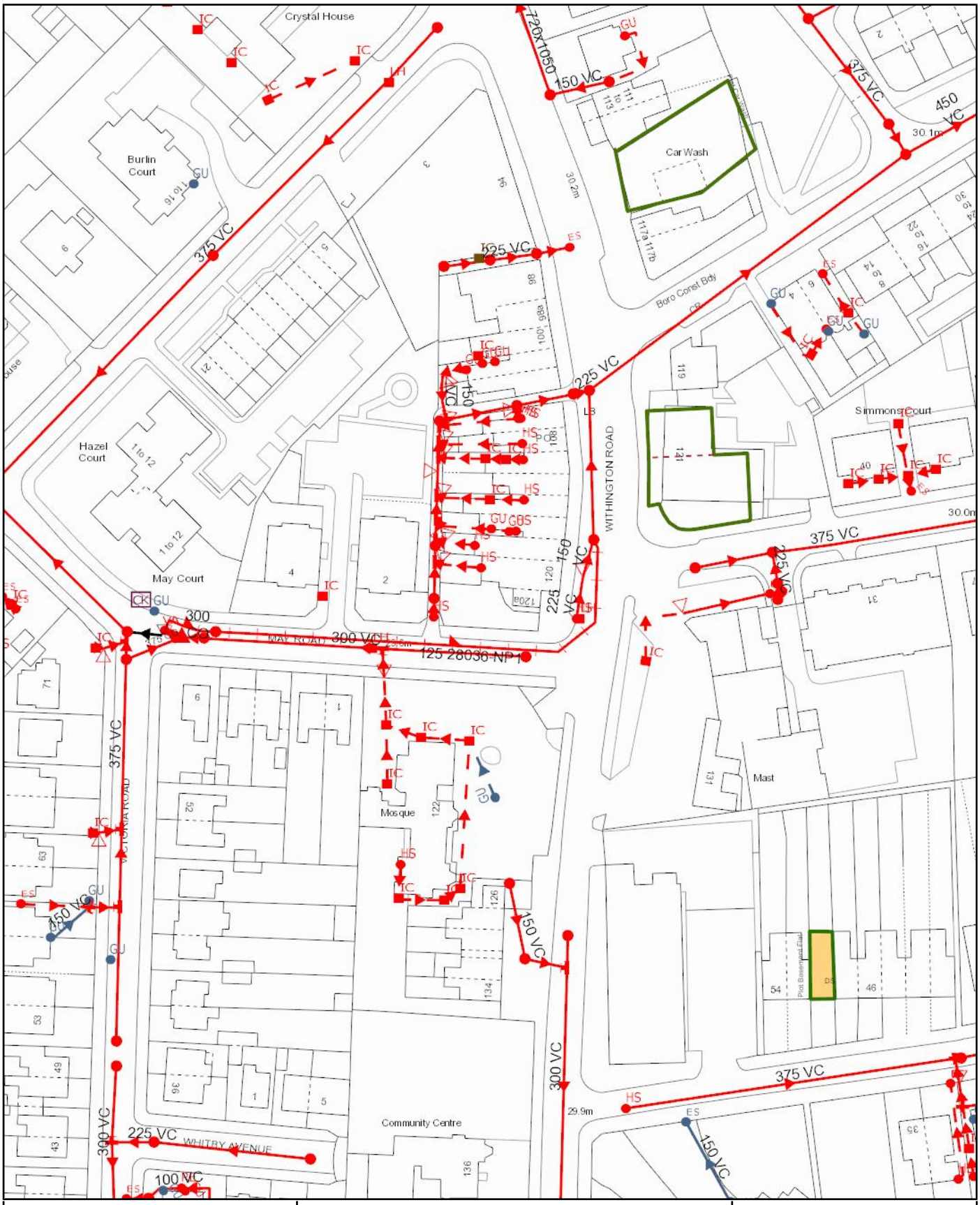
United Utilities
Water for the North West

Wastewater Symbology



All point assets follow the standard colour convention:	red – combined	brown - foul
	blue – surface water	purple - overflow

- Manhole
- HS Head of System
- ES Extent of Survey
- RE Rodding Eye
- IN Inlet
- DP Discharge Point
- HY Vortex
- PE Penstock
- WO Washout Chamber
- VA Valve
- AV Air Valve
- NRV Non Return Valve
- SO Soakaway
- GU Gully
- CA Cascade
- FM Flow Meter
- HA Hatch Box
- OI Oil Interceptor
- SM Summit
- DS Drop Shaft
- OP Orifice Plate
- Side Entry Manhole
- Outfall
- Screen Chamber
- IC Inspection Chamber
- Bifurcation Chamber
- LH Lamp Hole
- T Junction / Saddle
- Catchpit
- Valve Chamber
- Vent Column
- Vortex Chamber
- Penstock Chamber
- T Network Storage Tank
- V Sewer Overflow
- Ww Treatment Works
- Ww Pumping Station
- Septic Tank
- Control Kiosk
- Change of Characteristic



Scale: 1:1250 **Date:** 02/12/2020	**SEWER RECORDS**	United Utilities Water for the North West
Address or Site Reference:	120A WITHINGTON ROAD, MANCHESTER, M16 8FA	
Printed by:	Property Searches	

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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United Utilities
Water for the North West

Clean Water Symbology

Proposed	Abandoned	Live	
			Distribution Main
			Trunk Main
			Comms Pipe
			Private Pipe
			Concessionary Service
			Raw Water
			LDTM Raw Water
			LDTM Treated Water

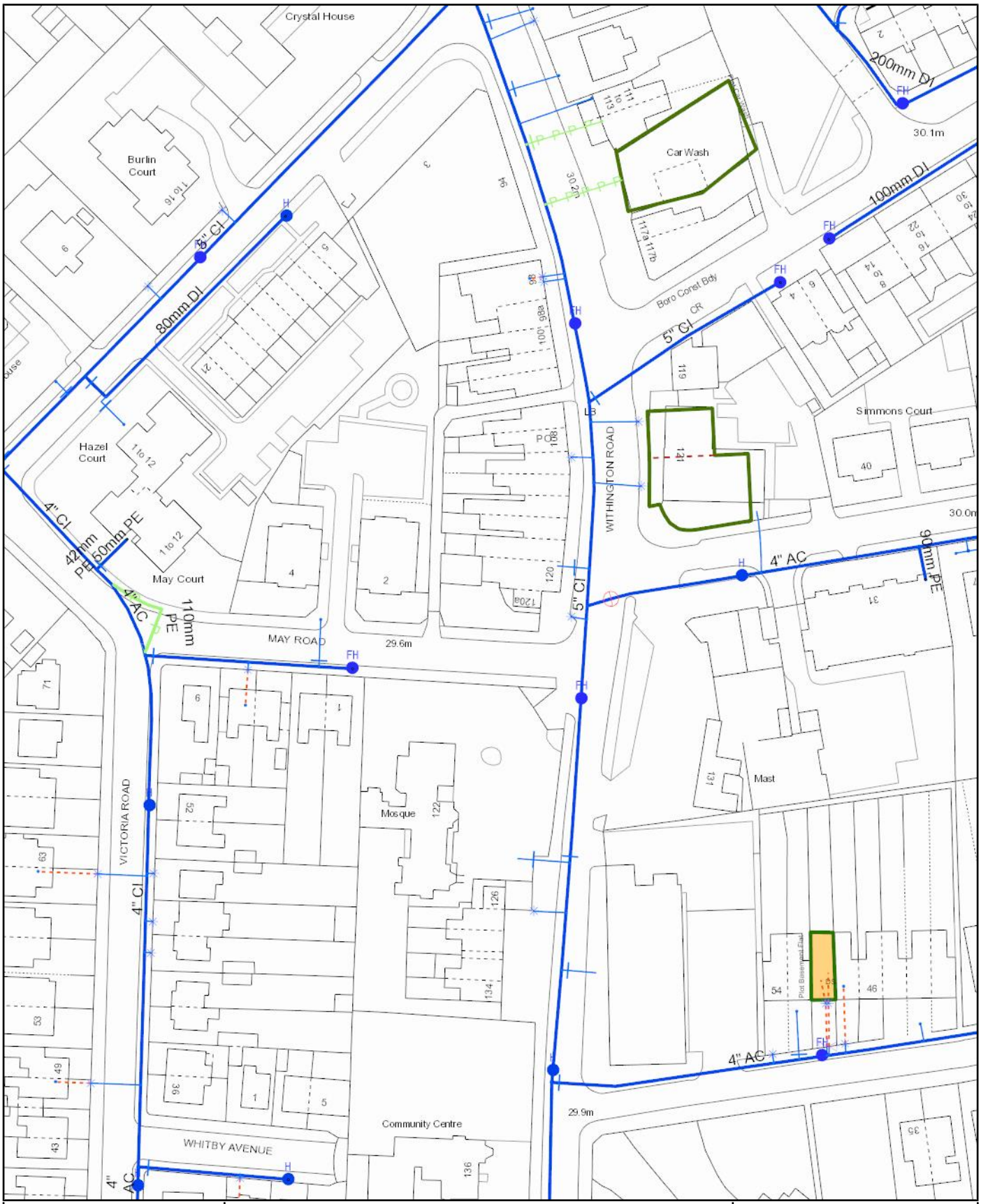
- Air Valve
- AC Valve, open
- AC Valve, closed
- CC Valve, open
- CC Valve, closed
- Non Return Valve
- Pressure Management Valve
- OMS Valve
- Stop Tap
- Flow Meter
- Domestic Meter
- Commercial Meter
- Pump
- Hydrant
- Fire Hydrant
- Anode
- Chlorination Point
- De-chlorination Point
- Strainer Point
- Access Point
- Hatch Box
- IP Point
- Sampling Station
- Logger Box

- Bore Hole
- Inlet Point
- Bulk Supply Point
- End Cap
- Site Termination
- Change of Characteristic
- Condition Report

Property Types

- Water Tower
- Valve House
- Booster Pumping Station
- Intake Pumping Station
- Water Treatment Works
- Supply Reservoir
- Service Reservoir
- Impounding Reservoir
- Pipe Bridge

Symbology for proposed assets is the same as above, but shown in green
Symbology for abandoned assets is the same as above, but shown in black



Scale: 1:1250
Date: 02/12/2020

WATER MAINS RECORDS

United Utilities
Water for the North West

Address or Site Reference: 120A WITHINGTON ROAD, MANCHESTER, M16 8FA

Printed by: Property Searches

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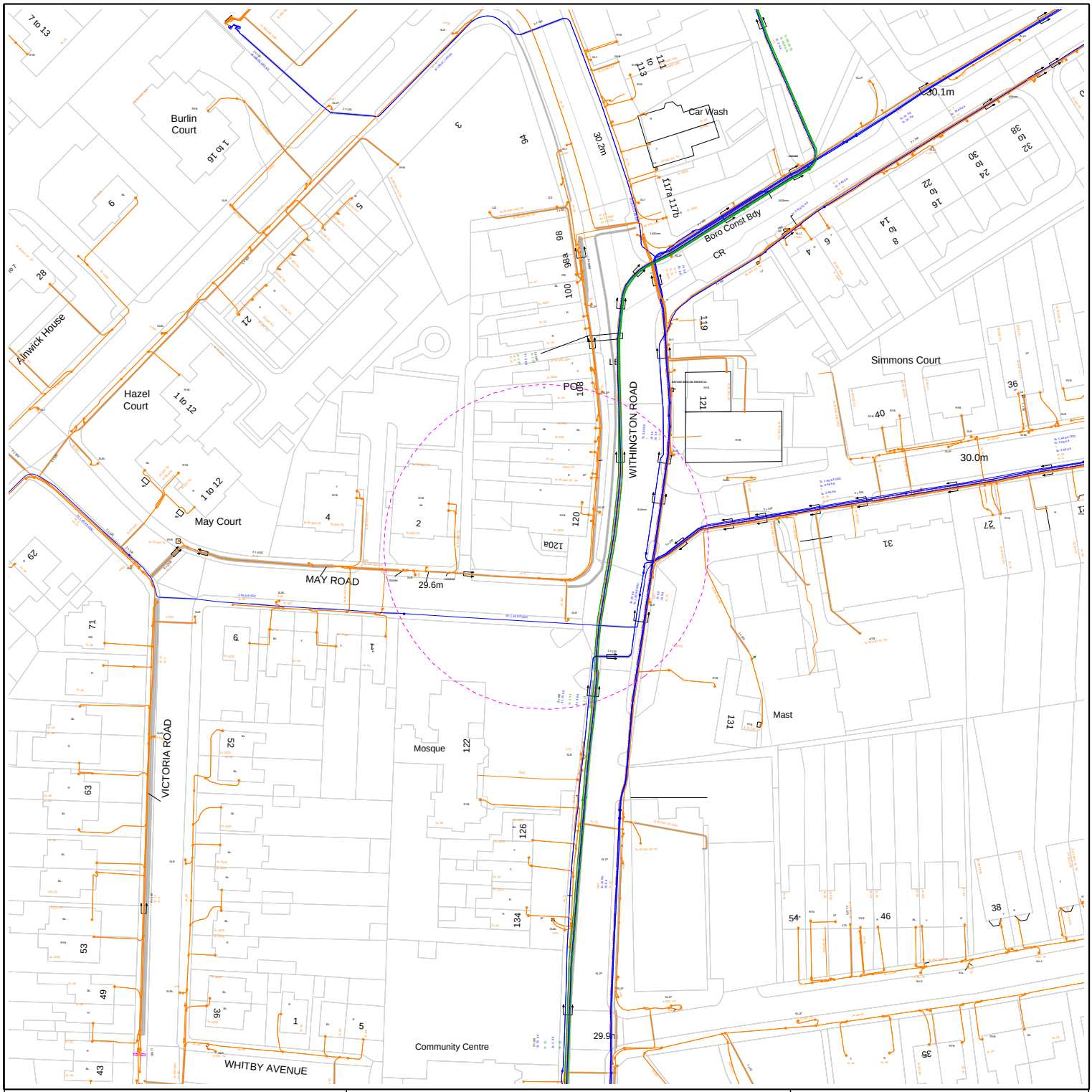

Requested by: noss pearl

Company: CA&D Architects

Date Requested: 24/11/2020

Job Reference: 20617773

Your Scheme/Reference: 1178

Dig Sites:

Area Line

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	

Data Management
Electricity North West
Linley House
Dickinson Street
Manchester, M1 4LF
Phone: 0800 195 4141
Email: planrequest@enwl.co.uk

Scales on A4 paper:
1:1250 Area dig site
1:250 Line dig site

Unless otherwise indicated the depth of Electricity North West Limited cables are in accordance with NJUG (450mm for Low Voltage & 600mm for 11kV cables) 33kV and 132kV cables are laid at depths as marked. The depth and positions of Electricity North West Limited equipment was accurate as shown when the equipment was installed. However third parties may have altered the level & other reference data. Therefore Electricity North West Limited accept no responsibility for the position of Electricity North West Limited equipment being different from shown. No person, body or company, shall be relieved from liability for damage caused to Electricity North West Limited equipment by reason of being located differently to the indications on this drawing. Service cables are not necessarily shown but must be assumed to exist to all premises, streetlights and signs. There may be other Electricity North West Limited apparatus in the vicinity which is not indicated on the cable records. Other apparatus may also be present which is owned by a third party other than Electricity North West Limited.

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Reference should be made to HSE Guidance, HS(G)47 "Avoiding Danger from Underground Services" and GS6 "Avoidance of Danger from Overhead Power Lines".

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Appendix Eight. Pictorial Evidence

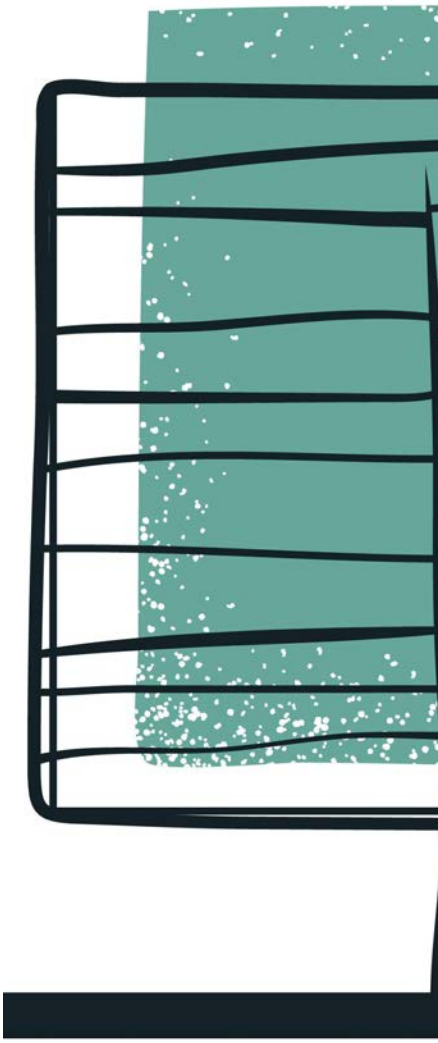

Figure 1. T1 Ash

Figure 2. T2 Thorn

Figure 3. T3 Ash

Figure 4. T4 & T5 Lime